

SIXTEEN BITS

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Correspondence and material for review or publication should be forwarded, preferably as a plain text file with separate PCX/BMP graphic files, by the deadline specified, to the Editor as follows:

- By email to pcug.editor@pcug.org.au
- By fax to (02) 6253 4922
- By mail to the Centre's address above.

Anonymous contributions will not be published, though name and address can be withheld from publication on request. Disks are not returned unless requested by the author.

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**Deadlines For
August 1998 Issue**

Articles and Member Ads

Friday 24 July 1998

Commercial Ads

Friday 31 July 1998

**Advertising in
SIXTEEN BITS**

SIXTEEN BITS is a unique and powerful medium for reaching the thoughtful decision makers in the ACT area. Our circulation exceeds 3500 copies each month, with multiple readership exceeding 4800. Many copies are retained by members for future reference. The advertising deadline is normally the first Friday of the month of publication.

Advertising options include

- **Cover ads**
- **Display ads**
- **Special inserts**
- **One-off mailing lists**

Regular advertisers receive discount vouchers to pay for any future advertising with *SIXTEEN BITS* (subject to account being in order). Every 12th consecutive ad placed is free. Please contact the Advertising Manager, Ken Livingston, on (02) 6285 3747 for further information.

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Corporation**

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Belconnen ACT 2616
(For ALL correspondence)

☺ PC Users Group Centre

Northpoint Plaza, Belconnen
Open Mon, Wed and Fri 10am-2pm
Saturdays and Sundays 9am-5pm
(closed long weekends)

The PCUG Centre is the venue for PCUG training, some Special Interest Group meetings and other activities. There is no charge for using the Centre for *PCUG activities*. Contact Petra Dwyer at the PCUG Centre on (02) 6253 4911 for bookings.

☎ PCUG Main Phone number

(02) 6253 4911
(Answering machine when Centre unattended)

📠 Fax number

(02) 6253 4922

✉ Email

pcug@pcug.org.au (or use addresses at left)

🌐 The INTERNET Project

(02) 6206 6200 *help@pcug.org.au*

🌐 World Wide Web page

http://www.pcug.org.au/pcug/

💻 Bulletin Board Service (BBS)

(02) 6253 4933 (5 lines 33.6k bps)
Fidonet address 3:620/243

☎ BBS Sysop voice number

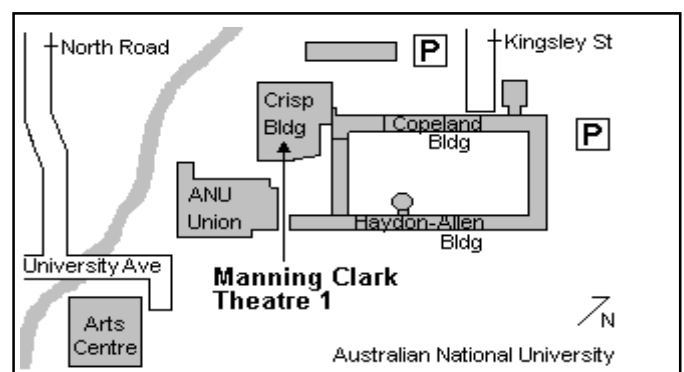
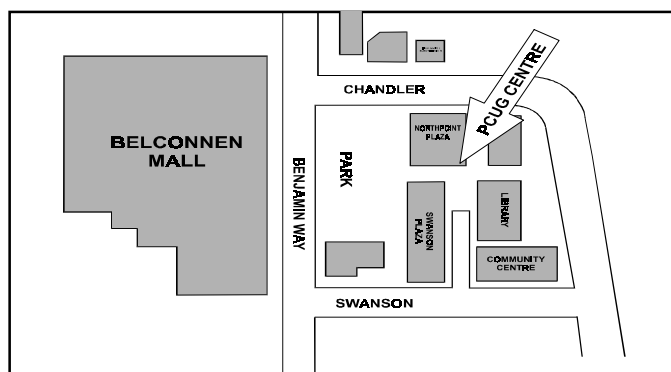
(02) 6253 4966 (6.00pm - 9.00pm)

Main Meeting

Main meetings are held 7.00pm for 7.30pm, *usually* on the last Monday of every month at Manning Clark Theatre 1, Crisp Building Australian National University.

New Members' Information Night

7.30pm *first* Monday of the month PC Users Group Centre, Northpoint Plaza Belconnen.





Editor's Desk Top

Anne Greiner, Managing Editor

This has been a really busy month with lots happening and lots of changes. Good for the soul, but a bit nerve racking at times. Brian Thomason has joined the editorial team (and he brought muffins to layout day – what more can I say). He will be working with the rest of us on the team, but perhaps more importantly, has agreed to sign up as advertising manager and do something positive for the running costs of the magazine. We really need that income if we are to implement some of the plans for a bit of colour here and there, and the facility to deliver to the printers electronically, both of which will enhance the appearances of Sixteen Bits no end, but both of which will cost.

Nick Thompson is on holidays so unfortunately there will be no CD-ROM column this month, but he should be back, refreshed and ready to go next month, and

Robert Dakin was called to the UK on family matters, so the next episode of *Soft Options* will also continue next month as well. Terry Bibb, though, was silly enough to tell me beforehand that he was going to spend some considerable amount of time sailing around in the Whitsundays, and I made him feel so guilty that he gave me several articles to use while he was away! Do I feel guilty as the frost gently settles on the grass outside?? Nah, not this little black duck, to borrow a phrase.

The gremlins that live in my keyboard are alive and kicking I'm sorry to report, although I have to admit that familiarity has engendered some affection in at least some cases. Some of them are getting totally out of hand though, and are venturing beyond the confines of the keyboard where they can be controlled most of the time by the close proximity of strong coffee. The powerboard has

developed an intermittent fault, and pops an overload and shuts down at the most inopportune times. (*She hasn't saved for at least ten minutes chaps – kick the powerboard!*) And the little brutes have been reading my old maths books too, and have discovered Pythagoras and fulcrums. (*No, no, the BIG pile of books over there, stupid. Just get the lever a little further under, and we can topple the whole lot in one go.*) Also I'm very much afraid that some of them have hitched a ride on the zip drive out to the Centre, and have introduced the Centre PC gremlins (cousins, I suspect) to passive non-cooperation in the great font dispute. (*Nah! Not a chance! Why would I want to display THAT abomination of a font. Try this one... <giggle, giggle>.*)

Just so long as they don't organise, and unionise, and elect a shop steward, and a delegate, and...

President's Letter (from the VP)

This edition I have to report that Ken is now officially no longer with us. Circumstances have required him to return to the United States, and he has, as of last Saturday, resigned as President of the PCUG. As Vice President, I have agreed to continue to mind the shop and wear the President's head gear for the time being, and David Schwabe will replace Ken on the IPMC and contribute to the expert management of TIP.

The first and best thing that I have to tell you this month is that the executive committees of both AUUG and PCUG met last Saturday, and that we have reached a very amicable and successful agreement about TIP and TIP finances. AUUG have agreed in principle with the restructured TIP accounts (with some minor amendments), so we will now be able to prepare a set of valid PCUG accounts, accurately detailing AUUG and PCUG equity, to take to the AGM.

AUUG have also agreed a number of modifications to the proposed TIP agreement, which will be redrafted and presented to both PCUG and AUUG committees, and subject to ratification, to

solicitors and auditors. A huge amount of sweat has gone into this process, and we are all happy to have a successful outcome.

The second and equally terrific thing to happen is that both committees (PCUG and AUUG) have, on the recommendation of the IPMC, agreed to the purchase of an AS5300, which is a large and incomprehensible piece of electronic equipment, to which can be connected rather more modern lines than the current AS5200. I am told that this new piece of electronic wizardry has a much more pleasant personality than the current AS52000, and won't present us with an engaged signal nearly so often, or worse still, dead space and an extra phone call charge. Seriously though, the upgrade should produce a noticeable improvement in connectivity for TIP users, and the performance will be closely monitored closely by the IPMC for some time to ensure maximum benefit to our users. The order has been placed, and we are now waiting on delivery and installation. Soon, I hope! There is the potential for further expansion in the future if required.

There have been a number of other smaller but important developments. We have purchased a new backup system in case of disaster (the disaster that only happens if there is no backup system), which is now in place. We have been having some serious airconditioning problems, particularly in the coms room where all the electronic equipment lives. Temperatures were rising as high as 32C, not good for computers. If you have been over to the Centre recently, you will have seen the gloriously simple solution - true lateral thinking - a mesh security door instead of the old solid one, that lets the air circulate throughout the rest of the Centre, and it has the extra benefit of allowing visitors to keep an eye on all the flashing lights!

Now that the TIP issues have been largely solved, we also wish to have a close look at things to do with membership issues, and are looking at a number of incentives to renew membership, and incentives to sign up new members. More on that later. See you all at the main meeting... ☺

Main Meeting

Monday 27 July 1998

GENEALOGY



In true genealogist's fashion Michael has attached what he claims is the closest thing he has to a photo of himself. This is his son Tom who looks roughly like he did 34 years ago!!

Michael Pahlow has been a member of the PCUG since arriving in Canberra in 1989. He is an amateur genealogist and family historian who has had an involvement with genealogy and family history for the last 20 years.

Far from being a "dead" boring pastime, genealogy and family history are hobbies and recreational diversions which can be both engrossing and addictive. Michael has mixed his passion for dead relatives and their stories with his passion for technology and software in hobby that is both enlightening and fits with a hectic professional life.

His discussion of his hobby will provide both an insight into how easy a hobby it is, to the "tools of trade", a discussion of how to start and details on contact points for both those with and those without a passion for the Internet.



Letters



Dear Anne

I would like to pass on my heartfelt appreciation to Greg and Barbara Kochoniak for their considerate and caring presentation to all members of the PC Users Group (ACT) Inc., their program named HyperSnap -Dx as a memorial in memory of their dear friend and my most treasured late wife Jeanette.

For those members who may have missed reading page 31 Sixteen Bits July issue, kindly written by Jim Hume, I enclose the details in relation to Greg and Barbara Kochoniak of "Hyperionics" grateful memorial presentation.

Presented to Bob Pillifeant and the Members of PC USERS GROUP (ACT) Inc. in memory of our dear friend, Jeanette Pillifeant, May 14, 1998.

Please download a copy of HyperSnap-DX version 3.xx from Hyperionics web site at: <http://www.hyperionics.com>

Then install the program and run HyperSnap-DX. At first it will complain that it is not registered. Please select the "Help" menu in HyperSnap-DX window, then "Enter License No." item from the menu that pops up.

Another window will appear now, where you may enter the following information, exactly as spelled below.

Register To: Members of PCUSERS GROUP (ACT) Inc.

Key: UNHU-SVBD-IESY-RJFZ-GHZQ-MXXY

License Type: Unlimited Site License select this type in "License Type frame)

The Key string contains only capital letters from the English alphabet, there are no digits or other signs in it, other than dashes or spaces to make the entry easier. When done, click on OK button. If all was entered correctly, the license entry window will disappear without any further messages. You may verify the license by displaying Help/About box, the name of your organization should be listed there.

Please do not hesitate to contact me if you have any questions. The best way to reach me is through email at this address gregko@hyperionics.com

Greg Kochaniak

Hyperionics

My thanks to Greg and Barbara Kochoniak, Jim Hume and the PC Users Group.

Bob Pillifeant

pill@pcug.org.au

ICQ No. 3383931

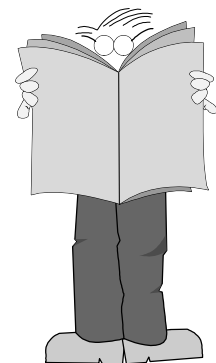
Hello Anne,

Would you please put the attached article in 16 bits as a follow-up article to my previous one. Otherwise it wan't make sense.

Thanks a lot.

Keith Kloosterman

See page 6



TED EGAN'S "OUTBACK KIDS" APPEAL 1998" SHOW

CANBERRA SOUTHERN CROSS CLUB

7.00 P.M. SATURDAY OCTOBER 17TH

Remember VISE? You know Ted Egan?

As you know, Katherine in the N.T. took a battering in the floods this year and a lot of money is spent on sending VISE tutors to that area. The School of the Air, an essential part of teaching children in the outback, was badly damaged in the floods and is only now working on a partial basis. Many of the School's students are behind in their work.

Ted Egan, who is the Patron of VISE, has made it his job to replace some of the funds VISE has used to help in the Katherine crisis. For this reason he is hoping to get an audience of 400 at the Southern Cross Club on October 17th.

That night's performance will feature:

Ted Egan
Pat Drummond
Felicity Urquhart
John Cuzzubbo
The Country Connection Band

The very reasonable price of \$15 per person will give you the opportunity to see a show of this quality and at the same time give your support to a worthwhile cause.

In addition you might like to join the artists after the show at supper. This supper will be a mixture of hot and cold finger foods at a cost of \$10.

Tickets may be purchased from the Southern Cross Club by September 18th. The National Coordinators for VISE may be contacted by:

Mail Ted Egan Outback Kids' Appeal
25 Gollan Street, Evatt ACT 2617
(Fax
(Answering Machine 02 62593030
Email michaelstock@hotmail.com

For a reminder of the excellent work that VISE does, see the June 1998 edition of Sixteen Bits ...Ed

IMPORTANT NOTICE FOR TIP USERS

The Internet Project proxy server has recently been upgraded and installed on a new system. The existing proxy server on "supreme" will be shut down on Friday 3rd April during the normal TIP system maintenance period.

PLEASE ensure that you are using the correct proxy settings.

Manual proxies must be set to:

(Domain name)	(Port)
proxy.tip.net.au	8080

Netscape and Internet Explorer users who have configured their browsers to use Automatic proxy configuration do not need to make any changes. TIP users who wish to use Automatic configuration should use this URL: <http://www.tip.net.au/proxy.pac>

If you are using ANY of the following domain names or IP address for your proxy settings, you will be unable to access WWW sites other than TIP/PCUG/AUUG pages after April 3rd:

www.pcug.org.au	supreme.pcug.org.au	pcug.org.au
www.tip.net.au	supreme.tip.net.au	tip.net.au
www.auug.org.au	supreme.auug.org.au	auug.org.au
www.canb.auug.org.au	supreme.canb.auug.org.au	canb.auug.org.au

203.10.76.34

Questions regarding these changes and browser configuration problems should either be posted to the TIP newsgroups tip.general or tip.help, or by email to the TIP Help Team, 'help@tip.net.au'.

Oz User Groups

Adelaide PC Users Group
PO Box 2231
Port Adelaide SA 5015
(08) 8331 0766

Meet: 7.45pm, 3rd Wednesday of the month at Enterprise House, 136 Greenhill Road, Unley. Visitors \$5.

Brisbane PC Users Group (Brisbug)
PO Box 985
Toowong QLD 4066
(07) 3299 3943 Info Line
(07) 3209 4980 (fax)
Pam Kirk (Pres)

Home page <http://www.brisbug.asn.au>
Meet: Kelvin Grove High School, Kelvin Grove, Brisbane. 9am-5pm approx, 3rd Sunday of the month.

Darwin Computer Users Club
Gary Drake (Vice President)
(08) 8932 4107 h
(08) 8945 0091 w
Email acsnt@acslink.net.au

Melbourne PC User Group
2nd Floor, 66 Albert Road
South Melbourne VIC 3205
(03) 9699 6222
10am - 3.30pm
(03) 9699 6499 Fax
Email office@melbpc.org.au
Home Page <http://www.melbpc.org.au>
Meet: 6pm, 1st Wednesday of the month (except Jan) at Pharmacy College, 381 Royal Parade, Parkville.

Perth PC Users Group
PO Box 997
West Perth WA 6872
(08) 9399 7264
Terry Vernon (Pres)
Meet 6.00pm, 1st Wednesday of the month at Ross Lecture Theatre, Physics Building, University of WA, Nedlands.

Sydney PC Users Group
PO Box A2162
Sydney South NSW 2000
(02) 9972 2133
Meet 6pm, 1st Tuesday of the month at main auditorium, Teachers Federation, 300 Sussex Street, Sydney.

Membership Notes



by Mike Burke
Membership Secretary

Welcome to new members reading *Sixteen Bits* for the first time, welcome to the PC Users Group. Continuing members should also check this column regularly because I am sure that there will be some little surprises from time to time, even for the most jaded of old hands.

If your PCUG membership expires at the end of August 1998
RENEW NOW
to avoid losing access to
The Internet Project.

Your Membership Card

Your membership card will normally be mailed to you on the third Monday of the month in which you join or renew your membership. Those who join or renew after the third Monday will receive their card/disk the following month. If you lose your card, please leave a message with the Executive Secretary on 6253 4911, or you may prefer to contact me directly via TIP at pcug.membership@pcug.org.au and it will be replaced without charge.

Information Disk

New members will also receive a new members' information disk containing important information about the Group and its services. Please read the rules and other material on the disk carefully as you will find the answers to most of your questions there.

From time to time the information will be updated, and I will put significant amendments on the BBS and the PCUG Home Page.

New Members' Information Night

New members are especially urged to attend a New Members' Information Night which is normally held at 7.30pm on the first Monday of the month (except January) at the PC Users Group Centre (see map page 3). These meetings are a chance for new and 'older' members (who are always welcome to attend) to meet with representatives of the Committee, to put names to faces, and to ask any questions that you may have about the Group and its activities. Tea and coffee are available, and the atmosphere is informal and friendly.

Main Meetings

Our main meetings, targeted at our general membership, are normally held monthly, on the last Monday of the month. The date, venue and topic of the meeting always appear on the front cover of *Sixteen Bits* which is timed to arrive in your mail-box in the middle of the week before the next main meeting. Main meetings are also advertised in the computing section of the Canberra Times on the day of the meeting. Anyone is welcome to attend these meetings—you do not need to be a member. For main meetings, we arrange guest speakers on a variety of topics throughout the year. As an added incentive, there are usually a couple of door prizes to be won. You've got to be in it to win it. There is no main meeting in December.

Special Events

We also have some special events such as the 'Bring and Buy Night' at the Albert Hall in November, and an annual Quiz Night in April. You should read *Sixteen*

Bits thoroughly as special events are publicised mainly through the magazine.

Annual General Meeting

The Annual General Meeting is held in September each year. Even if you are unable to attend Main Meetings regularly, members should make every effort to attend this Meeting at which office bearers for the ensuing 12 months are elected.

Other Good Stuff

For those who haven't yet learnt through bitter personal experience, please remember that TIP access is dependent on your continuing PCUG membership, and that it takes time to process your membership renewal - currently up to two weeks. We are looking at ways to reduce this time, but the best solution is for you to remember to renew early. Members, particularly TIP users, whose PCUG membership expires at the end of the month stated in the above box should renew their PCUG membership immediately. Do not delay because your TIP access will automatically be cut off at midnight on the last day of the month unless your renewal has been processed.

Don't forget! **RENEW TODAY** if this copy of *Sixteen Bits* arrived with a pink label. As a further service, one month before your membership is due to expire, I will send a reminder letter with a renewal form on the reverse. This form is a *very* noticeable colour and should arrive a day or so before *Sixteen Bits*.

Next New Members' Night
3 August 1998
7.30pm
PCUG Centre
Northpoint Plaza, Belconnen



...by Terry Bibo

Adding a scanner... *(Life wasn't meant to be easy)*

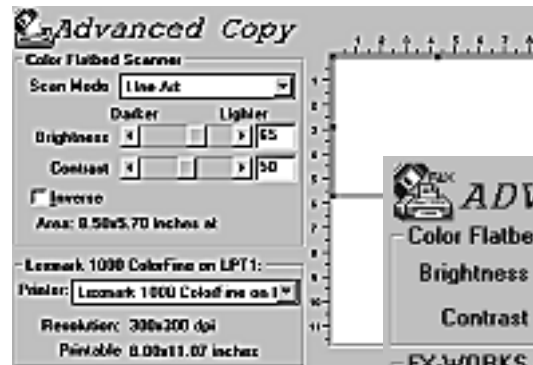
I do not have to look back very many years to when I bought my hand scanner and then about twelve months later upgraded the software.

It was a good black and white scanner with top Optical Character Recognition (OCR) software. But being a hand scanner it was not always easy to use and only scanned a column about 120mm wide. It cost me seven or eight times what my A4 size, and millions of colours, flat-bed scanner cost earlier this year. That's the price of progress, and now is as good a time as any to add a new toy to the box if you have the inclination. Flat-bed scanners are available for under \$200 these days, and can fill a variety of tasks and open up new avenues for data storage and manipulation - text and graphics - well within the capability of most of us.

The first basic decision in buying a scanner after having determined a maximum price is whether to buy SCSI or parallel port. SCSI (small computer systems interface) will require the installation of an appropriate controller card and will probably cost more for the same quality. A parallel port scanner will attach directly to the printer port and provide feed through for the printer that then attaches to the scanner. The major advantage of parallel port scanners is that they can be attached to more than one printer in the household, desktop and lap-top perhaps, simply by loading the software. SCSI would require each computer to have its own card.

Not all parallel ports are equal, and this has to be taken into consideration. At first my scanner - which installed faultlessly - refused to be found when needed. The reason was it needed an EPP (Enhanced

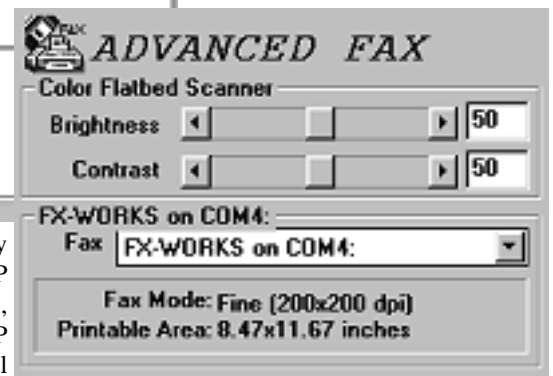
Parallel Port), whereas my Toshiba lap-top only offered an ECP (Extended Capabilities



Port). We got over that problem by re-configuring the port to be SPP (Simple Parallel Port) in the BIOS, which proved acceptable. SPP provides bidirectional communication at a lesser level than EPP, which means it works but slower than optimal. So when buying, check the scanner for compatibility with your existing hardware or be prepared to upgrade to its requirements.

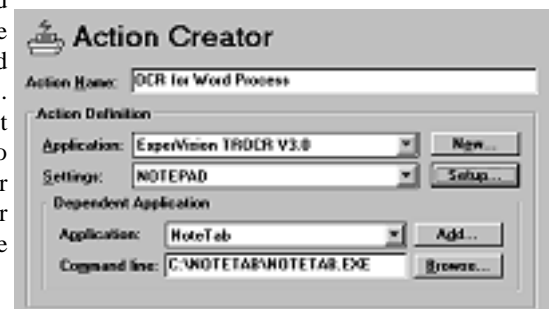
Any scanner worth buying will offer OCR (Optical Character Recognition) and graphic editor software, probably on CD. The OCR software will let you turn printed text into a file you can edit in a word processor. Normally, photo copied or faxed text is only a graphic image and the characters cannot be read by word processor software. Graphic editor software will permit you to alter, correct or add to existing photographs. The scanner will also function as a photo copier and fax machine (with appropriate software that comes with Win95).

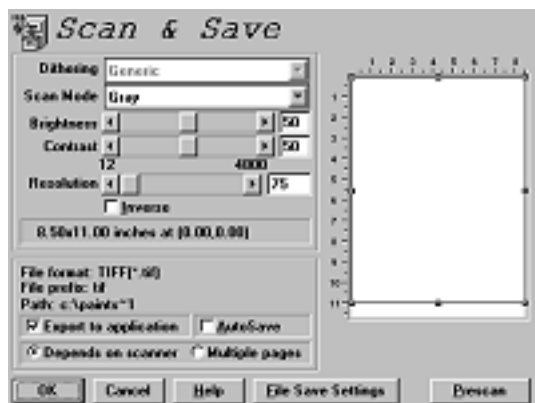
To get the best response from a scanner it will almost certainly be necessary to set up the options to your personal tastes and requirements, although it should come with acceptable defaults for reasonable results. Here are minimised images from my fax and copy options. Setting options like these, and calibrating the scanner so that colours reproduced on the monitor and printer closely approximate those in the original material, will be spelled out in each scanner's



user guide. But even following these instructions will not guarantee perfection, and practice with the imaging and OCR software will almost certainly be mandatory. Be prepared for a steep learning curve if you are a stranger to these arts.

These two images are from my OCR and basic scanning actions. I expect that most scanners would have similar





presentations. As you can see there are quite a few decisions to make in determining the final outcome of your scanning action. OCR interpretation is essentially a matter of brightness, to stop characters from flowing into each other and confusing the character recognition program. With scanning of grey scale and colour photos there are opportunities for creativity that can produce results from visually gratifying to absolutely disastrous. And to help you here there will be software for image editing.

My supplied program is Photo Magic by Micrografx, but since I was already familiar with PaintShop Pro I choose to use that most of the time. Real professionals use Adobe PhotoShop. Depending on the resolution - 50dpi or 600dpi - and the colour depth - 2 colours or 16.7 million colours - and everything in between, files can occupy megabytes of disk space and memory. 16Mb of memory is barely adequate. Fortunately most computers these days sell with at least 32Mb of RAM and 4Gb disks.

Whichever program you use I expect it will acquire its image through the universal TWAIN software used as a standard for scanners and digital cameras. I believe TWAIN stands for Technology Without An Interesting Name. It's nice to see a sense of humour occasionally in this frenetic computer world. This is a standard TWAIN

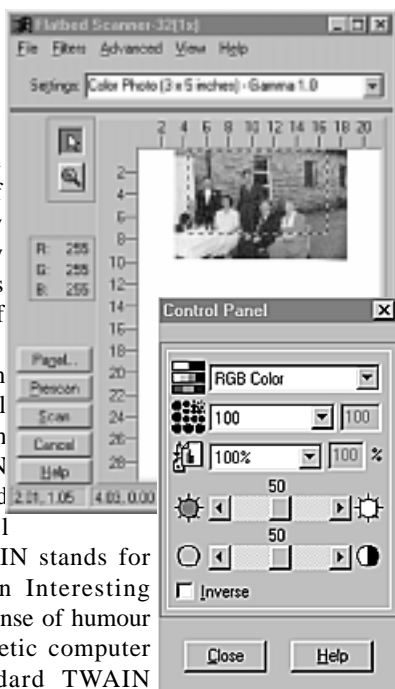
interface and it shows a prescanned colour picture with a selection area in dashed lines. This area can be shaped and located to capture a portion of the full image when the Scan button is pressed.

The superimposed image is the control panel opened by clicking on Panel. Expanded options here include resolution and magnification and more. You can begin to appreciate the control you may exert and might need to exert over your tonal quality and colour

balance, not to mention gamma correction, in order to produce a quality result. Learning to use a scanner intelligently is not an easy overnight lesson. But the effort can be quite rewarding.

Since I acquired some control (never say mastery) over my scanner I have added photos to my genealogy program. I was able to extract small portraits of individuals from group photos and massage them into the format I wanted. I am progressively digitising and retouching a select few of the thousands of photos I have taken over the years. Many members use scanners to put photos on their home pages on the World Wide Web, or for inclusion in personalised correspondence or clipart.

I have used its OCR capability to scan in articles from newspapers for electronic filing, and restore lost files from some old travel documentation for which I had only the pages from a dot matrix printer. But by far the most impressive use of a scanner and associated graphic editing software I have seen was with a very old photo on heavy cardboard. This had been broken in two and had jagged edges that could not be realigned.



Scanning and retouching produced an electronic image that can be printed out to pass as an original photo.



Before

After



The photo was from the archive of David Num (dnum@pcug.org.au), and Bob Cooper (bcooper@pcug.org.au) did the painstaking work. Bob used PhotoShop, but many other programs, including PaintShop Pro, are capable of this kind of work at far less cost. And well within the capabilities of most of us. Something to aspire to.

Recommended websites
www.infomedia.net/scan/
 for instructional reading:
www.scantips.com/

Enjoy your computing. Terry Bibo



Three ~~tough~~ cases.....



...by John Saxon

I've always enjoyed reading 'The Serviceman' articles in the electronics magazines. That's because they always follow a comfortably familiar pattern. First the serviceman is presented with a TV or Video suffering from a very obscure fault, and after innumerable false starts and logical twists, right triumphs over evil and the nasty fault is fixed-much to the delight of all concerned. Well, I'm here to tell you that fixing computer problems is not often like that! No doubt I'm preaching to the converted, but it seems that even though hardware (on the non-Quantum level) has got simpler (lower chip and connection counts), the software, particularly operating systems, has got a lot more complicated. The problem is that there are almost an infinite number of hardware and software permutations and combinations, and ever more complex sets of settings and options add further layers of complexity. Perhaps Mac lovers do have something to be smug about-but PCs are so much more fun (in a masochistic sort of way). So while most major problems usually (eventually) get fixed, there are always many more tweaks and tunes that could be attempted if there were enough hours in the day-so one often tends to leave the systems feeling vaguely dissatisfied.

Readers of my previous articles may have presumed that I only attempted to fix problems on my own system - often created by my own ignorant actions. But over the last few years since retirement, I have been trying to live up to our motto by helping people with problems, occasionally with some success. These systems belong to friends of friends, people in the coffee and chat group, senior citizens inspired by our help with the Internet at the libraries, and more recently notified by Nhan Tran's 'Help with Internet Team (HIT)' group. Most help is given in people's homes on their own systems. Oh the tales I could tell!

Here are a few of the more difficult ones- the owners will recognise their own symptoms, but hopefully will not object to this exposé.

Case 1 - The mystery of dropped connections:

System: Latish model Pentium, Plenty of RAM, Running W95 OSR2

Problem: Had been using TIP with no major problems - but started getting trouble 'logging on'

Resolution: This one took two visits and about 4-5 hours total. As usual, with hindsight, it should have been solved a lot quicker. The owner had been using Outlook Express to log on. I went through the main options in both Internet Explorer and the mail and news sections to stop auto dial up attempts and get back to a straight TIP log on sequence. Having set all that up, including the TIP script and DUNCE, getting on was a perfect one click exercise. But TIP apparently threw us off on about 5 occasions-some very soon after the log on was accepted. Went back to manual log-on sequence and recorded MODEMLOG.TXT files and apparently the disconnects were happening at the TIP end. I thought the problem might have been something in all those MSIE settings. Even though 'nothing had been changed' since the system worked well. Various modem init strings were tried with no success.

On the next visit, I started to think that perhaps the modem had developed an obscure fault (ran some minor diagnostics and all appeared O.K.). Even started trying to hook up an old 9.6Kb model! In the process we discovered that the serial port to the external modem was very slightly loose at the computer end. Tightened that up and no further problems! Rock solid connections - virtually and physically!

'Obvious' you say. 'I would have thought of that first'! I should have as well, but what threw me was that all the connection protocols were exchanged

100%-conducting the log on manually was 100% right though and including the PPP entry - it was only between 2 and 50 secs later that the connection was dropped. Also the modem passed the W95 diagnostic! I can only assume that perhaps the receive side had a good connection but the transmit was intermittent and that log ons and protocol negotiations are more tolerant than other TCP/IP activity - weird!

Case 2 - No happy ending:

System: 486, 32mb RAM, running Windows 3.1

Problem: Kit installed and working, Problems downloading web pages, E-mail O.K.

Resolution: I wish I could say that this one is resolved - but after 3 visits totalling 6 or more hours, the problem is still essentially as stated. Here's the story.

Installed Winzip 6.3 SR1 and Netscape 3.04 as the owner wanted a later version than came with the TIP kit. The system had the kit installed and Eudora was working but Netscape 2 would just appear to hang with internal or external URLs (proxies were O.K.). After installing NS 3.04 the system connected O.K. and Eudora, Agent, and Netscape appeared to worked O.K. (if a little sluggishly), but only tried a couple of URLs.

But the sluggishness was not surprising as a check of the Winsock window showed continuous messages being generated as follows:

```
NetMessage(3FB0,<CCC4 10 0000 01>)
event detected 01
eventmask = 003F eventenabled = 002D
NetMessage(3FB0,<CCC4 9 0000 01>)
rearm 0001
eventmask = 003F eventenabled = 000D
doevent 0020
eventmask = 003F eventenabled = 000D
```

Comm errors [OVERRUN]=93
That's just a small sample from the full log of course.

The messages didn't mean a lot to me. So I retired in confusion :-)) and checked the Net for Winsock tweaks, new Winsock versions etc. Eventually a friend suggested that some of Winsock's debug logging could be turned on. and the system was just displaying normal messages. This turned out to be the case, they were easily turned off and only the occasional comm overrun messages were now displayed (due to the 8550 UARTs). But the system still felt 'sluggish' and Netscape was really intermittent-some sites came up normally (generally PCUG ones and some overseas). Strangely, Australian ones seemed to fail more often. I got the impression that what we were seeing was some type of resource problem rather than geographical. The sites that failed just showed continuous download activity (meteorites & hour glasses), no error messages. Sometimes they half loaded-sometimes nothing. I suspected that high activity sites with graphics and perhaps Java were the worst problems.

So onto investigations of the system itself. Older than I first thought-brought in 1993. A 40 Mhz 486 SX. Upgraded at various times with 32Mb RAM, a 1.2 GB HDD, a 33.6 Kb external modem, etc. Stacks of 'free' software installed by dealer (no disks or docs!) including Norton's for DOS (and Windows?) V 7.0 etc. Old BIOS, so new HDD set up as a single partition via Norton's (I think)-judging by lot's of rather unintelligible stuff in the AUTOEXEC.BAT file. Norton's checks for viruses each boot, and McAfee was also installed-but they were both old (never updated) versions. A new version of McAfee was available on floppy, so this was run from a DOS window.

Clue No 1-message from McAfee 'Traces of MKC_BOOT virus found in memory-boot from a clean floppy and scan again in DOS'.

Clue No 2-The user's boot disk (and one I made on my system) could not find a C: drive in DOS! Microsoft Diagnostics 'MSD' could not find a C: drive-nor could

McAfee! So no cleaning possible from DOS, a nice Catch-22 situation. Only 'Checkit' diagnostic software was able to find the drive at the hardware level, and extensive testing showed no HDD hardware problems. All this indicated to me that the C: drive Master Boot Record was corrupted-in fact McAfee (from pure DOS) hinted that this might be the problem. But how was the system getting into W3.1? My guess is via Norton's which is handling the Logical Block Addressing (LBA), etc. In fact there is just a chance that there is no virus or MBR corruption and that McAfee is being fooled by Norton's? Have been unsuccessful in finding info on this virus from the Web (so far). But I felt reasonably confident that all of the above was probably causing some type of resource problems which are not obvious in Eudora and Agent as they are relatively 'light' system users. Also the non buffered UART was probably causing constant TCP/IP re-transmit requests.

So how to get this system to browse the web successfully? I really felt that I had some responsibility for it-but where does the HIT team responsibility end? Essentially the same initially reported fault remains-and I thought it might be a simple proxy problem!

In the end I have advised the user as follows-in order from the least intrusive.

a. Try disabling JAVA Script and turning off image downloads. Possibly return to Netscape 2.x.

b. Slow down the modem connect speed-possibly install improved comm drivers.

c. Rebuild the MBR-I think the command is FDISK /MBR. Then when pure DOS recognises the C: drive, clean for viruses with the latest McAfee. Obviously back up vital data files first (and quarantine any floppies made this way :-)). But I am reluctant to do this because I think it is outside our HIT contract, but more importantly due to the risk of data loss.

d. Format C! Start over with available software. Without a CPU upgrade there does not seem to be much point in installing W95.

e. Upgrade or buy a better system! Actually this is the plan - but not for 6 months or more.

So what has been learned? Plenty! Firstly an apparently simple Web access problem can be much more complex. There is often a grey area between software configuration or install problems, 'training' problems, and more serious underlying hardware problems. There is also the concern that one is putting several hundred dollars worth of effort into a system worth \$500 or less. Like many systems the saga continues!

Case 3 - Multiple problems!

System: Pentium 100, 24Mb RAM, W95A

Problem: Failure to boot, clock runs slow (looses hours/day) - needs TIP access

Resolution: I know this system! The motherboard, CPU and many other components used to be mine! I suspected that the CMOS battery might be low - so this was replaced via phone instructions (nice Lithium \$4.50 at Dick Smith). When I got there the first task was to set up the CMOS with the HDD data, time, etc. But the system would not boot at all. Went through the memory check and it just sat there! No error beeps - looked like the BIOS was not completing. So, as the problem now seemed to be hardware (or BIOS firmware) it was back to trouble shooting that. Removed all cards except video and floppy disk (this mother board does not have peripherals on board) and tried to boot to DOS from a floppy disk. Very occasionally the boot would get as far as an A: prompt. But I was running out of time so I eventually took the system home.


I felt that despite checks and re-checks of every page of the CMOS - the problem was probably in there somewhere. Sure enough - a careful read of the motherboard manual indicated that the HDD IDE PCI card was using an 'ISA legacy connector' - a little ribbon connector from the card to an 8 pin plug on the M/B. This allows the PCI device to use an IRQ (don't ask me why), but I suppose the design spanned the transition period between ISA and PCI. The M/B manual mentioned that this capability had to be enabled with a CMOS setting on the PCI page, and was not a default setting! So set that, and bingo - faultless boots to W95!

So now to get the TIP setup working. Going through Mike Gellard's instructions indicated that although Dial-up Networking was installed, the TCP/IP protocol was not. Damn! I had forgotten to bring the W95 CDROM home with the system! As the machine was supposed to be picked up within an hour or so, I decided to take a chance and install that from my own OSR2 CDROM - somewhat to my surprise it seemed to read and install the necessary files O.K. but when a re-boot of W95 was attempted, disaster struck! The machine did not complete the boot. Instead it would get as far as 'starting W95' then drop back to the memory check, then back up to 'starting W95' then back to memory check - ad infinitum! Surely Bill Gates could not be so vindictive as to organise W95 not to boot if a minor component was replaced from a different CDROM?! But when the disappointed owners came to collect their system, they confirmed that this was the same fault that the system had before the CMOS battery was replaced. The fact that it decided to reappear after some W95 driver changes had been made was coincidental!

So back to the drawing board. Something was intermittently marginal. One more thing to try. The CPU was actually a Pentium 75Mhz, but had been overclocked to 100Mhz for 3 years or so, with no apparent problems. So I returned it to 75Mhz and the system booted normally and has been rock solid ever since. So perhaps extended periods at higher than normal temperatures can possibly cause CPU degradation but not total failure?

TIP access was set up and checked out O.K. but when I tried to set up scripting it ran into problems. The RNAPLUS.INF file was found on the original CDROM but it could not be installed (nothing happened when it was right clicked in Windows Explorer). I suspect that this is due to some of the dial-up networking software being installed from the W95A CDROM and some from W95B. One day I will have to delete all DUN and load again from the W95A CDROM. But the system is currently accessing TIP quite well using manual log-ins, despite the old internal 14.4Kbs modem. Postscript - the system

clock is still losing many hours per day. Needs further investigation also.

This article has focussed on some pretty horrible problems. Luckily not all visits and systems are that bad. Many are relatively simple, involve mainly basic Internet and Windows training, and can be a real delight when people are happy that even some of their problems are solved. One common thread is that the TIP Internet kits need a major overhaul. The W3.1x kit could be improved, but doubt if there is too much incentive these days. The W95 instructions handed to new TIP subscribers are difficult for beginners, and do not indicate W95A and B differences. I often meet people who do not even know what operating system has been installed on their system ('word processing' is a common answer) - but these people are expecting to do all the Internet things that they see in the libraries and on TV. The PCUG is supposed to include some PC experts, but we lag behind most ISPs in the provision of 'painless' set-up disks. Hopefully W98 will make things easier. I'm not holding my breath! 

Early PCUG

...once upon a time in a universe far, far away...

In the beginning there were Apple IIe personal computers with an operating system of BASIC in ROM written by Bill Gates! then CPM Z80 machines then Microbees - then along came the IBM PC with one or two floppies, 256K memory and a 320 x 200 green screen. The ACT Branch of the Australian Computer Society had Microcomputer Special

Interest Group MICSIG which organised a computer exhibition in the Workers Club and the following year in the Lakeside (now Rydges). In the Rydges exhibition Peter Harris and Sue Castleman had their personal IBM PCs. At that time I owned an APPLE IIe with Microsoft Z80 CPM card and an 8080 card for IBM emulation!

There was a lot of interest so 6 of us met in the beer garden at the Wellington Hotel 1982? (now Pavilion, then Rydges)

and formed the group. Jim Gillespie, Nick Hammond, Sue Castleman, Peter Harris, myself and one other (hope someone remembers who).

We did it properly by legally incorporating, setting a constitution that explicitly prohibited software piracy. Jim went on to build up Sixteen Bits because of his Postscript interests. All except Sue went through a period as President.

Highlights were submissions to the government on Copyright. Bringing Bill Gates to Canberra at the Canberra Club in 1986. International speakers like Paul Brainerd from Aldus. Close relationships with suppliers like IBM, Microsoft, Lotus, Ashton Tate, Wordperfect etc.

Financially, we were set up by David Higginbottom as Treasurer, so that we were able to pay a full time officer, operate a bulletin board, set up premises. The success of the early organisation was a

focus on two aims. Firstly, helping first time users become acquainted with computers and to help them use the fundamentals. Secondly, to encourage power users to share their knowledge and thereby improve everyone's use of computers. There were minor organisational in-battles as some members stood for office to further their own agendas, but the democratic will usually won out. The current status with Sixteen Bits winning 5 international awards, TIP providing an introduction and service on Internet, 10 percent of the ACT population being members, training in our own training rooms, special interest groups and a list of volunteer support people for many applications is great.

Perhaps SIXTEEN BITS needs renaming to SIXTY FOUR BITS, is the only suggestion I can make 17 years later!

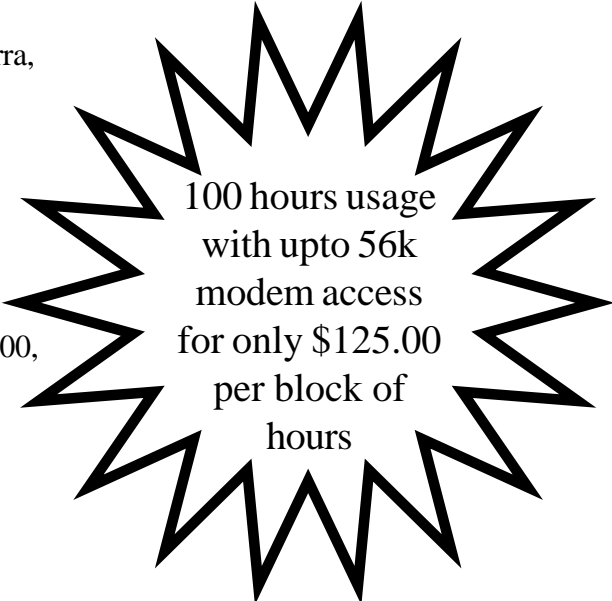
Chess Krawczyk

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UNREAL



A Game Review

...by Andrew Clayton



Way back in 1991 or so, Wolfenstein 3d came out for IBM PC compatible's. id Software put their first game out using Apogee's famous Shareware concept - you get the first episode for free, and when you pay for the game, you get the rest of the episodes. Wolfenstein 3d was a 'first person shooter', and spawned a genre of computer games which "single handedly" changed the way that people played games on their computers.

In 1993 or so, Doom was unleashed. You needed a 486 DX machine to really run Doom well; it had scary monsters, incredible sounds, and (for its time) very detailed levels, made for a single player gaming experience that caused people to duck and weave in front of their monitors, trying to avoid the weapons or monsters that were appearing on their screens. Where Doom and Doom2 really shone, was in Deathmatch, where you challenge other human opponents, clobbering each other with an array of weapons (pistols, shotguns, plasma rifles, rocket launchers, even chainsaws).

Other companies licensed the Doom engine, and titles like Heretic and Hexen were released, each with their own army of bad guys, and weaponry. Duke Nukem

3d came out (using 3Drealms own graphics engine), and was considered the best game of its kind.

In 1996, QUAKE was released. Quake needed a Pentium class machine just to run at all. If followed the same principle as Doom - run around a maze of twisty corridors, with various weapons at your disposal, wiping out hordes of creatures sent at you. Again, Quake Deathmatch, where you played against other players, was what made Quake (and its internet-designed child, Quakeworld) so popular. Defeating monsters is ok, but pitting

yourself against other Quake players is what really got your adrenaline pumping! (See my previous Sixteen Bits articles on Quake and Quakeworld)

Around the time of Doom2, a small group of people within a company called Epic, had released a pinball game (Extreme Pinball), and were looking for a new project. It was to be a mainly outdoors game, with caverns to explore and later on, castles. The designers of the game were avid Deathmatch players, hooked on Doom, and then Quake deathmatch, so they knew what they wanted in their game, and they wanted it to be 'the best'. So the idea for Unreal was born. For the full story on how Unreal was made, point your internet browser of choice to the following URL:

<http://www.gamespot.com/features/makeunreal/index.html>

Unreal is probably the single most over-hyped game around (except perhaps for the pre Dark Reign advertising blitz). With Epic showing a 'pre release' version of the game at a gaming convention in 1996, the 'gosh wow' news flooded the newsgroups and quake-based web-news sites (<http://www.bluesnews.com>, etc); however, it became apparent that Unreal wasn't going to hit the shops for Christmas '96, and then it became apparent



that it wouldn't even make Christmas '97! Unreal was in for some heavy criticism (without it even being released) for being "vapourware". (The other big vapourware title in the same class as Unreal, is 'Prey', but don't expect to see that title before 1999).

What makes Unreal different from Doom and Quake (and Quake II)? Well, a number of things spring to mind - the sheer size of the levels, the detail within levels, the effects within the game (lighting, sounds, movement), the intelligence of the computer opponents, and the simply incredible graphics throughout the game.

The graphics engine behind the game is apparently very programmable. You can write scripts to make things happen. The graphics engine has so much potential, that 3D-Realms, the makers of Duke Nukem 3d, licensed the engine for their upcoming game 'Duke Nukem Forever'; what makes that so newsworthy is that 3D-Realms had previously licensed the Quake 2 engine for Duke Nukem Forever, and literally threw away their dollars when they licenced the Unreal engine six months later!

So what is the game about? Well, nothing terribly original - your spaceship (in which you were a prisoner) has crashed on an alien world, and you have to escape the planet with your life. Like Quake 2, you run around shooting at things, and solving puzzles. There are a few innovations though. The most important is the friendly four armed natives the 'Nali', who are very useful for guiding you to secret areas (they beckon for you to follow). Sadly, they tend to plain get in the way when the bad guys are around, so you usually end up shooting them anyway, even though they don't attack. The 'universal translator' is another very useful item (the first thing you find). It enables you to get an English translation of the various runes, signs, status displays, and other communications. Without a universal translator in your pack, you are likely to die very quickly, and confusedly too!

There are ten weapons at your disposal, each weapon having two modes of operation.

There is a vast range of monsters as well, but you'll meet them when you play the game (and usually at the most annoying/dangerous moments). The



monsters are not slugabeds like you'll find in Doom or Quake either - these things MOVE. They don't move in straight lines, they jump and weave about and generally give you a hard time. The guy who wrote the Reaperbots for Quake (Steve Polge) was hired by Epic to program the AI for their various monsters.

Indeed, in 'Botmatch', where you play deathmatch against a number of computer controlled opponents, monsters with very high health levels, and who attack without mercy, flay you (and each other) whilst bouncing around the level, never easy to kill, and always respawning. Steve Polge is famous in the Quake community for his 'bots, and his work in Unreal makes for some very tough competition.

The sound in Unreal is very well done. The amount of processing power necessary to do good atmospheric and localised sound effects has a definite adverse affect upon the game when you're playing on 'low end' processors. Which is a good time to point out the rather meaty kind of hardware necessary to play this game.

The advertised minimum is a P166 with 16MB of memory. However, as a P166 owner with 64MB of memory and an Orchid Righteous 3dfx graphics card, I can assure you that the minimum configuration

is going to be somewhat tardy in terms of smooth game play. Unreal pushes the computer a lot - a P2-266 with 64MB performs a great deal better than my old

P166 can. And in the graphics department, playing Unreal without a 3dfx card of some description, is really pointless. This game was created using 24bit colour. Like Myst and Riven, the effects in this game are very good, but unlike the somewhat static Riven, this game does it all in true moving-point-of-view 3d, at upwards of 30 frames a second. Without a 3D accelerator card, you have to use the Software Rendering option. I loaded Unreal on a dual Pentium Pro 200MHZ machine with 256MB of memory and a 'decent' 2D PCI graphics card. At 640 * 480 resolution, the frame rate was under 10 per second, and the graphics looked terrible. On my home machine I play in 512 * 384 resolution, in 16bit (65,536) colour, and get about 16-24 frames per second on average.

Then there is the disk space footprint. A whopping 450Mbytes of disk space is required for the full install of Unreal. This can definitely cramp some people's style (those poor unfortunates with a 540MB disk drive, are going to be looking at doubling their disk space JUST to play this game!). Even with 64MB of memory, this game chews through your Windows 95 paging file as well. I've never witnessed such a resource intensive game before.

In addition to the game itself, Epic have also included the 'beta' release of

UnrealEd, the Unreal editor. This component of the game is sure to enhance the game, as end users 'point and click' their way to creating their own levels, with their own monsters. Level editing has been around since Doom days, but it has always been a chore, with the tools showing you a complex 2-d version of the eventual 3d environment. UnrealEd is

with several others, and we engaged in Unreal Deathmatch over a Local Area Network. We found that the disparate game setups (ranging from P166 with no 3d acceleration, to a P2-233 with an 8MB Voodoo2 3d accelerator) made for a disappointing deathmatch experience. Quakeworld was much fairer (and besides, people knew the levels!) and we played

right, Quake was less interesting, but made up for it in terms of deathmatch place. At the moment, on the general 'low end' (P166's with Voodoo1 3dfx cards), Unreal is an excellent single player game. There are moments when you are genuinely startled by what happens during the game. The journey through the levels is rich and even rewarding (in terms of finding the bigger better weapons, and more importantly, the ammunition for them!). People on the newsgroup comp.sys.ibm-pc.games.action, reknowned for the 'yawn, seen it' response to most games, have gone overboard with their rapturous praise of Unreal. Who can blame them! Unreal is a very polished, interesting, ground-breaking game. People are going to be talking about it for years.

If your machine meets the minimum specifications, then go out and get a copy of the game. If you liked Quake and Quake II, then you're going to LOVE Unreal!

Unreal, marketed by GT Interactive Software. Created by Digital Extremes and Epic Megagames. Purchased from Boomerang Software Exchange, Civic, for \$89.95. Available from all computer stores.

A different review can be found at:
<http://www.gamesdomain.com/gdreview/gdr.cgi?zones/reviews/pc/jun98/unreal.html>



integrally tied to the Unreal engine, so any changes you make can immediately be seen, 'flown' around, and tested. Designing levels is an artform to itself, but the tools made available here, are likely to see a wealth of new levels being released for the game, lengthening the amount of playability you can expect to get out of the game.

The game itself has to be seen to be truly appreciated. The now 'classic' lens flare effect has been enhanced with glowing fogs around bright lights. The transparent water effect is as good as anything in Myst or Riven. The reflective floors, translucent materials, different sounds as you stomp around on different kinds of flooring. The ambient sound effects are enhanced by episode-dependant sound themes.

Over the weekend (27th June) I took my computer setup to a friends place, along

that a lot more. However, when people upgrade, and the higher range 'entry level' machines of today (P2-266+) become more popular, I'm sure this game will take Deathmatch to a new level.

I've read that the internet support for Unreal is somewhat lacking at the moment, but Epic are working on the problem, and are about to release upgrades (available via the internet) to fix performance issues both with Unreal clients and servers.

Those of you with P2-266 machines with 128MB of memory, Voodoo2 3D accelerator cards, and 3d surround sound audio cards, are going to really enjoy Unreal. The rest of us with ancient P166's and less than 64MB of memory, will be crawling along, trying to play catch up in the hardware stakes, just so we can release the internal magic that Unreal contains.

With Doom and Doom2, the single player game was interesting in it's own



DIY. ? ? ? ?

...by *Don Nicol*

I answered the phone. “No worries!”, said I, “I’ll be there by 1:30 and gone by 2:30.” (I thought that I’d allow a conservative hour just in case I run into problems.)

Marion had just bought herself a 200+ CPU upgrade together with a motherboard (oops motherboard) and 32Mb RAM to match. Just for good measure she’d also bought new video and audio cards (and all for less than \$350 — whew)..

So off charged Sir Galahad full of confidence and goodwill.

Sir Gordon had prepared the field of battle by loading the CPU and RAM onto the mainboard and by setting all the switches and jumpers that the manual specified. “Don’t lose the manual” said I to Marion. “When it comes time to sell your mainboard everybody will be alert to the need to have the manual accompany it!”

After rechecking Sir Gordon’s expert work, it took me ten minutes to set up the board for an out-of-case test. —Test passed — the CPU and CMOS worked fine.

Then came the job of replacing the mainboard.....Problem number 1.....

The RAM fouled the hard drive cradle didn’t it. There was no way to adjust the situation (other than to shave the half millimetre or so off the RAM card). So we set about reseating the hard disk. This required rearrangement of the CDROM; the A drive and the B drive.

Then we found that the hard drive (which weighed a ton) was too big to slot into the 5 1/4 bay while the power supply was in place. The power supply had to go.

After that we found that the front-plate (the bezel) of the hard drive was about ¼ millimetre too wide. Resisting the temptation to take the electric sander to the task, we solved that problem by removing the front plastic fascia of the case so to slide the hard disk in from t’other side. So far so good and only one hour

over estimated time. Everything seemed then to go smoothly until it came time to boot up. That’s when we struck problem number four.

Dear old windows recognised the existence of drive A and kept trying to read from it in order to pick up the driver software for the new video and sound cards. I don’t know how many times Windows retries to read a disk after a failed attempt but (altogether) an enormous amount of time passed down the gurgler. If I had been smart I might have tried to solve the problem with the A Drive as a first priority. I might have disconnected the A Drive; or I might have tried to instruct Windows to stop trying to read the A Drive (after all the new drivers were on CDROM which Windows clearly knew was the E Drive), but I wasn’t smart and I opted as my first priority the need to fix the horrible mess that was on the screen resulting from the incompatibility between the old video driver and the new video card. No luck.

I finally resolved to discover which piece of wire I’d wrongly connected to cause the A Drive to misread. Another hour later I came to the conclusion that the floppy controller on the mainboard was not communicating with the A drive. That’s when I inadvertently told Marion that her mainboard was at fault. Well, her look of dejection was more than my conscience could handle so I put on my thinking cap (at last). My first idea was to hook the floppy drives up to the old adapter-card to see if that would work. It was ten minutes later before I realised that the old floppy socket was attached to the (SCSI) hard drive adapter card and that that was sitting neatly in place in its appropriate slot in the new mainboard. Idiot! I had always thought that SCSI peripherals bypassed the mainboard IRQ controls. That presumption is obviously wrong because the operating system was clearly seeing two floppy sockets where there ought be only one.

The poor operating system was in crisis mode arising from this split-personality syndrome. The solution to the crisis was simple. All I had to do was to disconnect one of the floppy sockets.

The mainboard does not allow disconnection of the mainboard floppy socket. The SCSI adapter has at least 80 switches (none of which are labelled). Because the testing of each switch would take about 10 minutes I was forced to the conclusion that I would save time by resort to that dreaded of all options (the penultimate option)...the one where you actually read the directions.

“Where’s the SCSI manual?” says I to Marion in pessimistic expectation (the date on the board showed that it had been made in 1990). “Never had it!” says she after a frantic search taking another 15 minutes.

Off to the internet with a crippled computer that could not display more than 16 colours (let that be a lesson to all you home-page designers) to try to find an online clue which might point to the appropriate switch(s) to attack. It was another fruitless 49 minutes and 19 seconds later that I decided that I should take a guess.

Wolla! the first two switches that I threw resulted in success. The SCSI floppies were disabled and Windows happily read the A Drive for a successful installation.

The head that settled on my pillow at 10:30pm that night carried a smile of self-centred satisfaction. After all, the possibility of testing 80 odd switches could have involved a further week’s trial and error. Working as it did after the first attempt is, I think, a lot better than just good luck. (Maybe I should buy a lotto ticket).

PS If any reader knows of the whereabouts of a manual for an Adaptec SCSI adapter card I would be grateful to hear of it. I understand that the model number is AHA-154X/AHA-164X/AHA-1535.

Caption Competition



??.....
.....

This cartoon first appeared on page 27 of the Jan 19 1897 issue of Punch Magazine. Thankyou to Ted Macarthur who who found this little gem and offered it to me.If anyone has any more suitable contributions, send then as an attachment or hard copy to the Editor.

The original caption was well up to Punch's usual standard, but we thought it might be fun to see what sort of modern title our readers could come up with. We will publish a selection of the best ones in next month's Sixteen Bits. Email suggested captions to the Editor.

Nhan Tran's Now Official TIP Web Help Pages

<http://www.tip.net.au/tip/help>

- What's new
History of changes to TIP help page
- TIP Contact Details
Phone numbers, domain, proxies, email addresses
- Useful TIP information
Time allocation, usage statistics
- TIP documents
Agreement, Charging Scheme, Acceptable Use Policy, Access Application
- InternetFAQ
Answers to the Frequently Asked Questions about the Internet: what is the Internet, what you can do, netiquette
- TIP help FAQ
- Answers to the Frequently Asked Questions about various problems other people may have had with The Internet Project; your problem may not be a new one
- 'How-to' documents
How to set up and use various programs needed to make the most of your Internet account.
- Glossary
Translating acronyms, computer jargon, 'netese and emoticons like ;-) in plain English.

TIP Technical Information

Domain (PCUG)	pcug.org.au
Domain (AUUG)	auug.org.au
DNS server	203.10.76.34
Mail server	mailhost. Domain
News Server	newshost. Domain
ftp server	ftp. Domain
WWW server	www. Domain
Proxies	proxy.tip.net.au port 8080

AN EXPLANATION OF BUS WIDTH AND GRAPHICS

...by Peter Ortner

I found this excellent explanation of bus width etc on the Cirrus Logic site; it's one of those newbie questions that few people can answer well. I thought it could be appropriate for the magazine...

It came from <http://www.cirrus.com/drivers/graphicdrv/faq.html>.

How can a 64-bit chip with a 32-bit driver work in 24-bit color in a 16-bit ISA slot?

How many bits one part of the computer hardware or software has has little or nothing to do with the bits in another part. Software can be currently programmed using 16-, 32-, or 64-bit code. There is no difference between the three on performance, the only benefit is the ability to use larger and more complex numbers and address more memory. In fact, because of the greater complexity and memory resource requirements, the newer 32-bit versions of most software wind up far slower than the older 16-bit version. Windows was programmed in 16-bit code, and most of Win95 is in 16-bit code; so

there is no such thing as a real "32-bit" Windows driver, and a 16- or 32-bit driver for Win95 makes no difference. The important thing is whether the driver is fully compatible.

Colors are defined by how many bits of data are stored per pixel on the screen. A 24-bit color mode has 24 bits of information for every pixel, which is enough to define 16.7 million different colors for every single pixel. This has nothing to do with how many "bits" the driver software was written in. 16-bit-per-pixel (bpp) mode defines 65 thousand colors per pixel, 15-bpp defines 32 thousand, 8-bpp defines 256 colors, and 4-bpp defines 16 colors per pixel.

The system data bus between the CPU and the peripheral cards is also defined in bits. The ISA bus is a 16-bit bus because it can transfer 16 bits of information for every clock cycle, which happens to be 8.33 million times per second, or 8.33Mhz. The PCI or VLB buses can transfer 32 bits per clock cycle at a faster clock rate of

33Mhz. This all just defines how fast data can be transferred between the video card and the CPU, it has nothing to do with what bit-ness the software was programmed with or what color mode you are in. There is also a dedicated data bus between the video chip and the video memory. This is a proprietary bus on the video board and has no direct interaction with the system bus. The width of this bus in bits partially controls how fast the video chip can write to the video memory, and is roughly related to how fast the video chip can update the image on the screen. So a 64-bit video chip would in general have double or better the performance of a 32-bit chip. There is also a clock rate of this bus, just like for the system data bus, but this is usually not advertised in any product literature or manuals so it is not easily used for chip comparisons. And again, the bit width of the video chip has nothing to do with the bit-ness of any other area of the computer.



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INTERNET

The Legal Issues

For your information... Laurence Godfrey brought an action against the Melbourne PCUG and one of their members for allegedly posting defamatory articles. The Melbourne PCUG eventually chose to settle out of court rather than contest a legal battle in England with the associated costs. The following was posted by Mr Godfrey:

On Sun, 31 May 1998 23:10:10 GMT, in melb.general larry@ibmpcug.co.uk (Laurence Godfrey) wrote:

For the past several months I have been reading>factually incorrect accounts of my English High Court against Melbourne PC User Group ("Melbourne PCUG"). While it is hardly surprising that comments about the case from people who know nothing of the facts should miss the point altogether, I do find it very surprising that the Press Release from Melbourne PCUG published in March 1998 was silent about the substantive issue at the core of this case and that the EFA editorial published in May 1998 is similarly bereft of the material facts and in addition misstates the relevant law.

In short, my case against Melbourne PCUG and another person (its member and the poster of the defamatory articles), was over the publication of 6 Usenet articles which contained false and defamatory allegations about me. The issue of the ISP's liability in this case, which has exercised the minds of those who have commented either with no knowledge of the facts or without making any reference to the relevant facts, was *not* that of whether an ISP is or should be liable for the *innocent* dissemination of usenet material which originates from its news server. On the contrary, the issue was whether the ISP is liable in circumstances in which it is *put on notice* that one of its customers is posting defamatory material from its facilities. It is the crucial matter of the ISP being put on notice that is curiously missing from the erroneous reports that I have seen of my case.

The relevant facts are as follows:

The 6 Usenet articles complained of were published over a period of 23 days in 1996. I wrote (variously by email and fax) to Melbourne PCUG

- (i) on day 1;
- (ii) again on day 2;
- (iii) once again on day 2;
- (iv) again on day 3;
- (v) again on day 4;
- (vi) again on day 22;
- (vii) again on day 23; and
- (viii) once again on day 23.

The then President of Melbourne PCUG replied to me on day 3 stating that the advice he had received was that his ISP was not liable for publication in these circumstances and that the ISP would not intervene in the matter.

From the above I think it is evident that Melbourne PCUG had ample notice of what was going on. As to Melbourne PCUG's knowledge of its liability for publication of defamatory statements and its policy at the relevant time: Its then President wrote the following in an article (which pre-dated the defamatory postings complained of), published in September 1996 in Melbourne PCUG's journal called "PC Update": "The committee must act immediately where it sees a potential for defamation proceedings, so any member who treads into that territory is virtually guaranteed to lose, at least temporarily, access to all our electronic services. Members posting to the BBS or the Internet would be very wise indeed to gain an understanding of the laws and penalties for defamatory statements." In an article (which also pre-dated the defamatory articles complained of) published in August 1996 in PC Update, Mr. Macarthur, an Australian solicitor, has this (perfectly correct) advice for readers of Melbourne PCUG's journal: "Many Internet users and some service providers believe that acts of online anarchy, including defamation, are beyond the effective reach of the law. All users and service providers should be aware that the rights of the individual are still protected by the law, even in cyberspace—the laws of defamation apply to the Internet. ... "You will be liable for defamation if you publish a statement that injures the personal, professional, trade or business reputation of a person or company. Publication is broadly defined to mean the communication of a statement by any

means—this will include via the Internet. "You may be liable in each place where the material appears. Posting a defamatory statement on a computer bulletin board on the Internet could amount to an actionable publication in respect of any user capable of accessing the board; perhaps 20 subscribers to a private board or any section of the estimated 40 million Internet users around the world!

"A defamation action is designed to restore the reputation of the injured person by awarding compensatory damages. Global publication on the Internet may provide a jury with the incentive and grounds to award astronomical damages.

"Who is liable?

"* Any person who takes part in, or authorises, the publication of defamatory material will be a publisher for the purposes of the law and therefore liable...."

Once again, then, the main issue in my case was whether, *once on notice*, the ISP in this case was liable for the publication of defamatory postings. This case was brought in England and I complained only of publication in England. In English law (and, as far as I know, in Australian law), there is ample authority that the tort of defamation is committed where publication takes place, and publication takes place every time and everywhere that the defamatory statement is read.

The English statute that applied at the date of the publications complained of, and still applies, is the Defamation Act 1996. Contrary to what is stated in the EFA editorial, this act has not been subsequently revised". Indeed, the Act has not been amended at all and as far as I know there are no current proposals to amend. Moreover, the author of the EFA editorial seems to have misunderstood the relevant section of the Act.

Section 1(3) of the DA 96 (not section(3) as stated in the EFA editorial) does indeed afford certain potential savings from being a "publisher". In 1(3)(e), as noted in the EFA editorial, a saving is expressly afforded when the statement is transmitted ... by a person over whom ... the operator or provider of access has no effective control. However, I say that once put on notice that its

customer (or member) is posting defamatory messages using its facilities, an ISP is obviously able to exercise effective control in that it can suspend or restrict that person's access to its facilities.

Moreover, and this is most important, even if an ISP is saved by the above from being a "publisher" within the technical meaning of the Act, it is still liable for the defamatory publication unless it can also satisfy both of the following requirements: s.1(1)(a) it took reasonable care in relation to the publication; and it did not know, and had no reason to believe, that what it did caused or contributed to the publication of a defamatory statement.

To this extent, the DA 96 purports to codify the defence of innocent dissemination which was available at English common law before enactment and, arguably, is still available. The key word here is "innocent", and innocent means that the disseminator (the non-publisher within the meaning of the act) had no knowledge and ought not to have had knowledge and took reasonable care in relation to the defamatory publication.

For this reason, in circumstances in which an ISP is put on notice, even if it escapes from being a "publisher" within the technical meaning of the Act (and I do not believe that it does for the reasons explained above), then it is still liable because it cannot clear the other two hurdles required by the Act.

The case was not, contrary to what has been represented, about whether or not an ISP could be expected to monitor its entire Usenet feed, or the Usenet postings of all its users. It was about a specific series of postings from the same person, and the ISP in this case was being asked only to control that person's further defamatory output via its facilities, something which Melbourne PCUG (in the above quoted statement from its then President in the September 1996 "PC

Update") say that it is able to do and indeed that it must do.

Melbourne PCUG was represented throughout my action by a very large and highly reputable firm of City solicitors in London who have considerable expertise in the relevant fields of law. It also had the benefit of advice from English Counsel. In contrast, from the start of these proceedings right through until the settlement with Melbourne PCUG, I was acting in person - ie. I was not represented by solicitors or by Counsel. Contrary to the suggestions I have seen, if this was a case in which the odds should have been stacked in favour of one or other party by reason of that party's access to and the quality of its legal representation, then they must have been stacked heavily in favour of the ISP, and against me.

Melbourne PCUG was advised in my case to challenge the jurisdiction of the English Court. This it did by issuing a jurisdiction summons and setting about preparing for what would have been a very costly application on jurisdiction. After seeing my affidavit evidence in reply, on the advice of its solicitors Melbourne PCUG abandoned its jurisdiction application and settled the matter with me. It should be emphasised that if it had gone ahead with its jurisdiction application and the application was refused (as I am quite sure that it would have been), it could then have gone on to defend my action, but instead it chose to withdraw the jurisdiction application and also to settle.

Contrary to what has been reported, the amount of the settlement I received from Melbourne PCUG was in the sum of £5,500, or about \$AUS 12,000. Obviously Melbourne PCUG also paid its own solicitors' costs. The Second Defendant's own application on jurisdiction, also prepared for him by a (different) firm of English solicitors, was refused on being heard in the High Court and costs were awarded to me. The Court has since

entered a default judgment in my favour for my claim in libel against the Second Defendant.

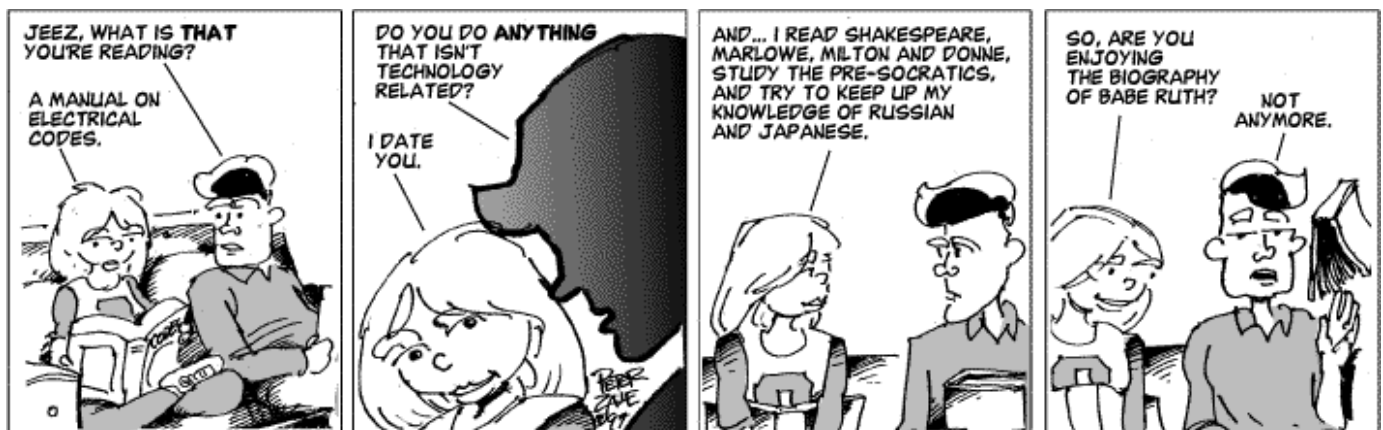
Melbourne PCUG has, to my knowledge, an indemnity agreement of sorts with each of its members. There is nothing to prevent an ISP in these circumstances, if so advised, from bringing separate contribution proceedings in Australia against the poster of the messages in question.

I hope that by this message I have clarified the real issues in the case, and that if this matter is further discussed those who do so will have the benefit of a knowledge of the facts.

I think it is a pity that the EFA, many of which organisation's aims I agree with, have allowed themselves to make a judgment on my case without a proper knowledge of the facts.

Lastly, while I do not present the following as legal argument or as an exact analogy to publication in this or any other case, because it is not, I suggest just as an exercise that readers consider what they would say to their neighbour in the following hypothetical circumstances:- You return home one day to find that a large sign is displayed for all passers- by to see in your neighbour's front garden on which sign you are correctly named and your address is given and it is falsely proclaimed that you are, say, a convicted thief. You ask your neighbour to kindly remove the sign and he replies: "Oh no, I didn't put it there, so it's not my responsibility. I have given Mr. X permission to erect any sign that he wants in my garden and it is not up to me to remove them. Moreover, I have told Mr. X that if he wants to put up any more signs in my garden then, regardless of whether or not the allegations he makes about you are false and irrespective of how damaging they may be, I am not going to prevent him from doing so".

Laurence Godfrey



Ockham's Razor

Computers are being used extensively in politics. Is this a good thing and where will the future take us?

Robyn Williams: Just before the last General Election in Britain I went to the Millbank Headquarters where the Labour Party's secret weapons were working around the clock. They included the Fast Response Unit and Excalibur, computer system which has all the speeches and comments of the Tory politicians stored away to be retrieved almost instantly if a Labour frontbencher wanted to score a point. The system was deadly, and as you'll remember on May 1st last year, helped to deliver a huge victory to Tony Blair and his battalions, a victory from which the Conservatives are yet to recover.

Computers in politics: It's already a fast developing phenomenon. Where will it lead?

Here's an opinion from John Nieuwenhuizen, author of the ABC book 'Asleep at the Wheel - Australia on the Superhighway'.

John Nieuwenhuizen: Imagine we're in an election campaign, Jeff Kennett or John Howard traipsing about the electorate pressing the flesh, kissing babies and visiting old people's homes. Nothing unusual in that until somebody notices that Jeff and John seem to be more than one step ahead of the media; a bit more ahead of the issues, a bit quicker to gauge the mood of the people, always ready to say and do just the right thing at the right time, in the right place.

They're reading the mood of the people almost before the opinion polls are published. In fact they seem to know the results almost as the pollsters are asking the questions.

The only explanation is that the data from the polls is flowing more quickly than usual, perhaps directly to the politicians. Not just directly to them, but directly into them, into their heads, and into their brains.

It's the stuff of science fiction of course. Or at least American writer Stephen Bury thought so. He wrote a novel in 1996 called 'Interface' featuring

an ambitious State Governor with a microchip implanted in his brain which allows him to process electronic opinion poll data and react instantly to the mood of the times.

If we discount the more fanciful aspects of his story and leave aside the microsurgery, the story is still an important parable for our times, times in which the interface between politics and technology is about to become an uncomfortable place to be.

The discomfort is going to come from two sources: Firstly, the era of electronic democracy is likely to give us access to vastly greater quantities of information. Once the television and the telephone and the PC have merged, political information will pour down the old phone line. The smart teleputer will allow us to dial up and receive copies of legislation, background information, Hansard transcripts and much, much more. All of which is supposed to improve the democratic process.

he second source of discomfort is a bit more difficult to come to grips with, a bit more difficult to explain, and as you'd expect, the one with more profound consequences.

f the superhighway fulfils the expectations of its more ardent enthusiasts, we'll see an insidious drift away from representative democracy toward some form of what's called direct or participatory democracy. We'll see a form of electronic democracy where the same teleputer will not just provide us with information, but will allow instant opinion polling, instant referenda and instant voter feedback.

f the American experience is anything to go by, our politicians will increasingly use the superhighway to tell us what they're doing, but this will also tempt them to lead from behind, asking us more frequently what we'd like them to do next and becoming hooked on the drip feed of opinion poll data. The superhighway will make this technically very simple.

Now, that the superhighway will bring this about, we can confidently predict, having watched the possible become the desirable in so many other fields of life.

If we don't understand what's so special about representative democracy, we won't be able to make informed choices about how the new technologies might change it. The changes might be for better or worse, but changes there will be, and now is the time for some informed debate about just how we'd like to put the superhighway to best use.

I was called a wanker and an academic recently for insisting that understanding the difference between direct democracy and representative democracy was pretty fundamental. It was interesting that both should serve as terms of abuse.

Despite the fact that we elect MPs to go and represent our interests, we also expect leadership from them. Edmund Burke summed up this notion more than two centuries ago when he told his constituents that he felt he owed it to them to be a pillar of state, using his judgement, rather than behaving like a weathercock, 'of no use', he said, 'but to indicate the shiftings of every fashionable gale'.

Around the time of the drafting of the American Constitution, one of its framers, Alexander Hamilton, echoed this when he said that it is the duty of politicians to 'withstand the temporary delusions of the people in order to give them time and opportunity for more sedate reflection'.

As Burke said, we should expect leadership from our politicians not more slavish adherence to the will of the majority on any given issue on any given polling day.

And there's the rub, of course. What will happen in ten or twenty years when the physical necessity of visiting a polling booth has been removed and voters can simply press buttons on the TV remote control, enter a PIN number and vote yes or no to capital punishment, say, or the logging of the rainforests.

This is not as far fetched as it sounds. In the US giving everyone a say in mini-referendums has become increasing popular. They're quaintly called 'ballot initiatives'. There were more than 150 of these at the 1994 State elections and they covered everything from gay rights to fixed terms for politicians, to the question

of cutting of Social Security benefits for illegal immigrants.

As Bill Gates points out, at the moment for logistical reasons, these ballot initiatives can only happen while a major election is taking place. But he sees a day in the near future when the information superhighway would allow such votes to be scheduled more frequently because they will cost very little to organise.

Think of this idea: the idea of an ongoing schedule of electronic referenda. Millions of us could express our views on Aboriginal land rights today, and Hansonism tomorrow. At a glance I suppose, this might look like the purest expression of democracy. But nothing, absolutely nothing, would further undermine our representative system of government.

Because, believe it or not, the inertia that's built into our political system, the standoffs between the two houses of parliament, the struggle between the State and Federal Governments, these things are

designed to reduce what government can actually do. The glacial pace of the bureaucracy, the checks and balances applied by the courts, by these means the individual is protected from the ravages of an overactive government, while the markets basically roll on regardless. And just as importantly, the individual is protected most of the time from the tyranny of the majority.

Now maybe this is not what we want from our government. Maybe we would like them to be free to do more. But we certainly wouldn't want to change the system just because technology made it possible.

Bill Gates must have read Stephen Bury's book because he actually looks forward to the day on which a politician might receive a million pieces of email on a topic, or the day on which a politician can have his beeper announce the results of a real-time opinion poll from his constituents. And Bill Gates is confident that this day is not far off. Bill Clinton is

already receiving 160,000 email messages every day.

Now that is not communication, that's madness. That's what's called an excess of democracy.

If we don't manage the introduction of this technology carefully, it's an excess that could lead to a rash of poor decision making; it could lead to knee-jerk government and policy making on the run. On the other hand, it could paralyse government. Neither alternative would improve things much.

It's even been suggested that the superhighway will remove the need for politicians to actually meet face-to-face in parliament. The technology will allow them to vote and debate online, and this is supposed to allow them to spend more time with their constituents. But what if the polities actually just spend more time closeted with the pollsters and glued to their computer screens?

And what's possible for the politicians will also be true for the average voter. No

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more grassroots democracy. No more marching in the streets. Just silent blinking screens, smart teleputers linking one citizen with the next in a great web of virtual citizenship. Lobbyists won't be found in lobbies any more. They'll be online organising torrents of email and rallies in cyberspace, instead of petitions and town hall meetings.

In America, candidates have already been unseated by campaigns initiated and co-ordinated over the Internet. And while we can't blame the medium entirely, the truth is we have already commenced our ride down the slippery slope to electronic democracy, and we are assuming that the 'electronics' won't alter the 'democracy'. Historian Daniel Boorstin wrote of this dilemma in relation to television many years ago contrasting what he called the 'segregated' experience of watching television ... with the necessary health and vigorous deliberative 'public life of a democracy'. If there was concern about the isolating, segregational effects of television, we should be extremely worried about computers and the superhighway.

It might be said that we're already a long way from having much in the way of 'public life' in our democracy. The

emphasis on getting out and marching in the streets, on attending political rallies and meetings, is much reduced from what it was twenty or thirty years ago. The process of politics for the great majority of people is mediated by television and by newspapers.

If this is so, why should we be concerned at how the superhighway might influence our political behaviour?

There are plenty of people who believe that politics is already too poll-driven. If technology makes it cheaper and easier to poll more people more often, and to have the results of these polls collected instantly, we might end up with a future in which Ray Martin or the producers of '60 Minutes' have more clout in setting policy than the elected government (though I suppose some people would argue that that's already the case).

In optimistic moments it's possible I suppose to see the new technologies as offering great advantages to democracy. Bill Gates and others obviously think that empowering previously disenfranchised groups is one good thing that will spring from the new technologies.

But how will pouring more information around the country help democracy? The

simple, cheap and instant communication offered by the superhighway is only going to benefit democracy if citizens are motivated and able to process political information. More communication is not always better communication. Some fans of electronic democracy work from the premise that people have lost faith in government because they feel they have little or no input into its workings. On the other hand, perhaps people don't want more input or more information. What they want is real, concrete solutions to real, concrete social problems.

Bill Clinton's staff, faced with a million email messages, might suggest that what they have is a communications problem. Or a problem with the volume of communication. But to the average voter there is neither a communications problem nor a volume problem. There are real problems, in their streets and in their homes, just as there are in Australia.

It's completely naive to think that the promised democratic dividend of the superhighway, an increase in available information, it's naive to think that this will bring many real or tangible benefits. Because how many voters, other than perhaps journalists and academics, have



Thank you PCUG members.

A portion of every dollar you spend is going to help Esther Kirikumwino, in Uganda, to have a better chance in life. Why ???, because in this day and age of rapid obsolescence with computer products, every \$500 worth of product is worth very little in a short period of time. However, that same \$500 can have a significant impact in improving a child's life chances in a developing country. Esther is indirectly sponsored by PCUG members.

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Annual General Meeting

The Annual General Meeting of the PC Users Group (ACT) Incorporated will be held on Monday 28 September 1998 at 7.30pm the Copland Theatre, Australian National University, Canberra.

Members who wish to vote at the meeting will need to bring a current membership card or the latest *Sixteen Bits* mailing label or other suitable identification as a currently financial member of the PC Users Group (ACT) Inc.

Members who will be unable to attend the meeting may appoint a proxy in the form of the notice set out below. No member may hold more than 5 proxies. **Proxy forms must be received by the Secretary no later than 7.30pm on Sunday 28 September 1997.**

Agenda

1. Apologies
- 2.(a) Minutes of the previous Annual General Meeting held on Monday 29 September 1997
- 2.(b) Matters arising from the Minutes
3. President's Report
4. Presentation of Accounts
5. Election of Returning Officer
6. Election of Committee for 1997-98
7. Appointment of Registered Company Auditor

N.B.: NOTE CHANGE OF VENUE TO COPLAND THEATRE

FORM OF APPOINTMENT AS PROXY Sub-rule 35(2)

I, _____
(full name)

of _____
(address)

being a member of the PC Users Group (ACT) Incorporated

hereby appoint _____
(full name of proxy)

of _____
(address)

being a member of that incorporated association, as my proxy to vote for me on my behalf at the Annual General Meeting of the PC Users Group (ACT) Incorporated to be held on the twenty-eighth day of September 1998.

(signature of member appointing proxy)

Date ___ / ___ / ___

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THAT THE PAGE MAY BE REMOVED

the time or inclination to call up those online Hansard reports as part of their political decision making process? Is access to parliamentary White Papers or Green Papers something that the public has been hanging out for? Given access to detailed documentation on, say, the complexities of the health insurance system and Medicare legislation, would the average voter really be in a position to deal with such information?

Where are all the people calling for more information in our political debates?

It's undeniable that the era of cheap, instantaneous digital communication will bring us benefits. But we're unlikely to be able to capitalise on these without broad-ranging public debate about the forms, and the functions and the flaws of the existing systems and the ways in which the superhighway might change these for better or for worse. Will the availability of the technology make it more attractive to poll the populace more frequently? Will the fact that the technology makes interactive democracy possible, also make it desirable? How far are we from the day when, abandoning print and TV advertising, politicians and political lobbyists will concoct individually tailored

interactive multimedia presentations, sent via the superhighway to every living room in the land?

Again, it may be no bad thing to have alternatives to mass television advertising, but let's not be naive and assume that the new environment will be either cheaper or 'more democratic' and let's certainly ensure that we shape this new environment deliberately and cautiously. Let's not be hurried because the technology is just around the corner. Remember always that new technology is usually just around the corner because somebody stands to make money through convincing us to abandon the old and buy the new.

Robyn Williams: Not Luddite, but prudent. John Nieuwenhuizen is author of the ABC book 'Asleep at the Wheel: Australia on the Superhighway'. He is now Director of the Sydney Writers' Festival, which starts on 12th May and goes for one week.

Guests on this program:

John Nieuwenhuizen

Director Sydney Writer's Festival Author of "Asleep at the Wheel - Australia on the Super Highway", published by the ABC

Journal of the PC Users Group (ACT) Inc SIXTEEN BITS *Online*

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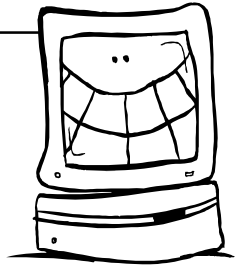
By Gabe Martin
borderln@cts.com
© 1995 GABE MARTIN



<http://www.cts.com/~borderln/>

Stan didn't really mind the new keyboard design, but he just wished they hadn't put that new key so close to the "Enter".

Bits & Bytes



How would you have graded it??

This is forwarded from a graduate of the U. of Oklahoma Chemical Engineering Dept. Citing one of Dr. Schlambaugh's final test questions for his final exam of 1997. Dr. Schlambaugh is known for asking questions on his finals like: "Why do airplanes fly?"

In May 1997, the "Momentum, Heat, and Mass Transfer II" final exam question was: "Is Hell exothermic or endothermic? Support your answer with proof". Most of the students wrote proofs of their beliefs using Boyle's Law or some variant.

One student, however wrote the following:

"First, we postulate that if souls exist, they must have some mass. If they do, then a mole of souls also must have a mass. So, at what rate are souls moving into hell and at what rate are souls leaving? I think we can safely assume that once a soul gets to hell, it does not leave. Therefore, no souls are leaving. As for souls entering Hell, let's look at the different religions that exist in the world today.

Some religions say that if you are not a member of their religion, you will go to Hell. Since there are more than one of these religions, and people do not belong to more than one religion, we can project that all people and all souls go to Hell. With the birth and death rates what they are, we can expect the number of souls in hell to increase exponentially. Now, we look at the rate of change in the volume of Hell.

Boyle's Law states that in order for the temperature and pressure in hell to stay the same, the ratio of the mass of the souls and volume needs to stay constant.

[A1] So, if Hell is expanding at a slower rate than the rate at which souls enter hell, then the temperature and pressure in Hell will increase until all Hell breaks loose.

[A2] Of course, if Hell is expanding at a rate faster than the increase in souls in Hell, then the temperature and pressure will drop until Hell freezes over.

So which is it? If we accept the postulate given to me by Theresa Banyan during freshman year, that 'It'll be a cold day in Hell before I sleep with you,' and taking into account that I still have not succeeded in having sexual relations with her, then [A2] cannot be true; thus, Hell is exothermic."

The student, Tim Graham, got the only A.

e-proverbs

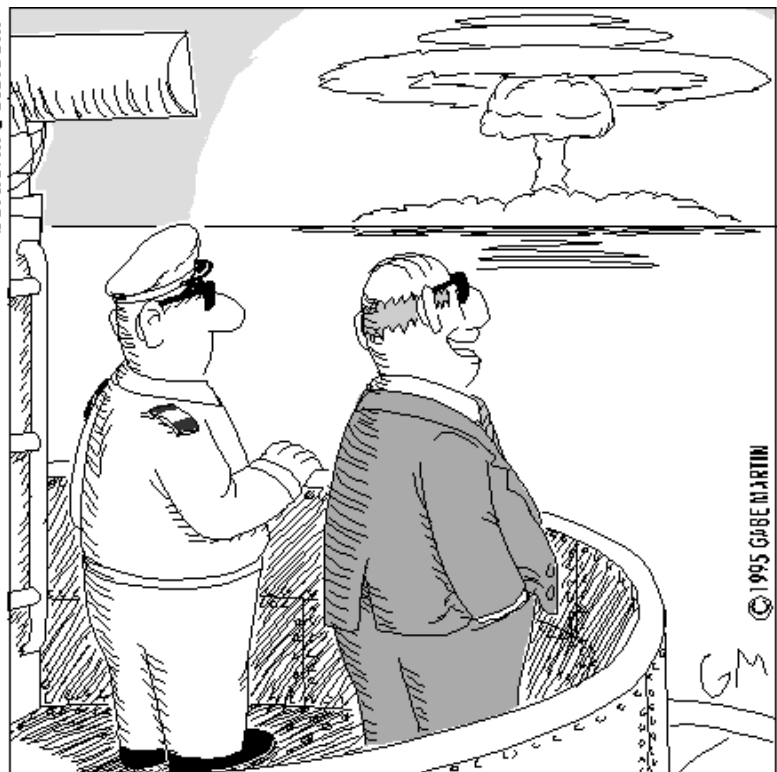
1. Home is where you hang your @
2. The E-mail of the species is more deadly than the mail.
3. A journey of a thousand sites begins with a single click.
4. You can't teach a new mouse old clicks.
5. Great groups from little icons grow.
6. Speak softly and carry a cellular phone.
7. C:\ is the root of all directories.
8. Don't put all your hypes in one home page.
9. Pentium wise; pen and paper foolish.
10. The modem is the message.

11. Too many clicks spoil the browse.
12. The geek shall inherit the earth.
13. A chat has nine lives.
14. Don't byte off more than you can view.
15. Fax is stranger than fiction.
16. What boots up must come down.
17. Windows will never cease.
18. In Gates we trust (and our tender is legal).
19. Virtual reality is its own reward.
20. Modulation in all things.
21. A user and his leisure time are soon parted.
22. There's no place like <http://www.home.com>
23. Know what to expect before you connect.
24. Oh, what a tangled website we weave when first we practice.
25. Speed thrills.
26. Give a man a fish and you feed him for a day; teach him to use the Net and he won't bother you for weeks.



By Gabe Martin
bordein@cts.com

The **BORDERLINE**



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<http://www.cts.com/~bordein/>

"Well, the way we see it, we're just trying to improve the species diversity of the planet."

Puzzle Corner

...compiled by Victor Bushell

Last month's puzzle on the Census Taker was a tricky one. Congratulations to K A Moylan for his very lucid solution and to John Hambley for his thoughtful analysis of the problem.

The solution consists, of course, in finding, from the various sets of three integers whose product is 1296, two different sets that add up to the same number. This must be the correct solution since otherwise the Census Taker would have had his information without having to ask "Are any of their ages the same as yours?" Evidently there must be just one such case. So the first step is to factorize 1296 into $2^4 * 3^4$. Then list all their arrangements or permutations split between 3 people. Some of these will be duplicate permutations. For example (72, 18, 1) and (1, 18, 72) are the same. Eliminate these. Also eliminate any sets that contain centenarians — admittedly this is an assumption but a reasonable one. From the remaining sets only two sets (81, 8, 2) and (72, 18, 1) will add to the same number 91. The house number is 91.

The so called "rural sector" has been often in the news of late so this month our puzzle will be about the trials and tribulations of life on the land. Actually, because troubles always seem to come in threes (or that's what I've been told), there are three puzzles that our farming friend has to solve. Can you help?

Old MacDonald had a farm ...

Old Farmer MacDonald had an extensive grazing area for his cows, the grass yield being uniform throughout, as was its consumption by each of the animals. Eight of his herd consumed the original grass and new growth on a two-acre plot in 2 weeks, after which he moved them to a fresh two-acre plot, which lasted them 3 weeks more. During this same 5 week period, another group of cows ate all the grass in a five acre plot.

How many cows were in that group?

One day he was taking count of his horses, cows and chickens. Being somewhat of a mathematician, he noticed that he had a different prime number of each. Moreover, he observed, "If I multiplied the number of cows I have by my sum total of cows and horses, it would give me a figure just 120 greater than my number of chickens."

How many of each must he have had?

Later that day he was in a real quandary. The demand for milk had been heavy and now, just as he was about to shut up shop for the day (as a sideline he always kept some milk to cater for the locals), two customers arrived — one with a half-gallon can, and the other with a quart pot, and in the store was just enough milk to fill the half-gallon can.

What to do?

To tell the quart-potter that she would have to do without milk for her porridge

would be unkind. To share the milk equally between them would mean a disgruntled half-gallon.

There was only one way to bring happiness and joy to both his customers — surreptitiously to add enough water to satisfy both of them. There was water to be had in abundance from the tap, but he started by filling the half-gallon can with milk, and the only other measure available (apart from the second customer's quart pot) was an empty three-pint jug.

The question was, how to add the water in such a way that he could give each customer the required quantity of liquid, while making sure that the quality of richness was in each case the same. After all, he didn't want one customer to get weaker milk than the other, for he was a just an honest dairyman.

What was the most expeditious way of carrying out his plan?

Note: A prime number is one which has no other factors except itself and 1. Apart from 2 they are all odd. Thus the first few primes are 2, 3, 5, 7, 11, 13, ... (for technical reasons 1 is not a prime but this is not relevant here)

2 pints = 1 quart, 8 pints = 1 gallon

Please send your solutions (full or part), suggestions, requests for help or any suitable puzzles you might have come across to vicbus@pcug.org.au. Good luck.



Ten Years ago in Sixteen Bits ...

Compiled by Andrew Clayton from the August 1988 Sixteen Bits (Vol 5, No 8)

Norm Hamer dug right into the fundamentals of the C programming language, pointing out why a previous columns program had caused upset with a different compiler (Borland C Vs Microsoft C). The issue was with different 'interpretations' of ANSI standards by the two companies. A problem which has bitten many a programmer over the years since then. Nashua has a letter published, slamming Choice magazine for their blistering review of Nashua diskettes. Malcolm Street presented a potted history of Apple Corp. and pooh-poohed the legal battles raging between Apple and Microsoft about Windows 2 (Boy, what a turkey that was!),

with information about other legal entanglements which effectively destroyed both companies. Malcolm went on to describe how Microsoft designed software on the Mac platform (e.g. Excel) and then stopped development on there, and went over to the PC and Windows environment development, leaving Mac users out in the cold. In a double dose of C, Karl Auer presented an article on "types, typedefs and casts", very important for the budding C programmer. Tony Sollazo wrote about 'computing resources' in the ACT — bookshops, computer hardware, and computer software sites. Tony mentions ACTCOM (which is still doing well), and Steve's

Communications Centre, which sank without a trace in the mid 90's. Michael Lightfoot wrote a column on Filters and Pipes in Unix, with his unix-centric attitude poking out all over the place :-).

Sixteen Bits Specific History: Back in 1988 the group's journal was produced using Pagemaker V1, running on an Epson PC AX2 (10Mhz) PC with a 20MB hard disk and a 'handy scanner', a 200dpi scanning device. These days we use the Training Room PC network, with gigabytes of disk, and 16 or 32MB of memory, with Pagemaker 6.5, and a wonderful HP Laserprinter.



SOFTWARE Library



Phil Trudinger

Phil Trudinger Ph: 6248 8939
(11am-6pm)
Email: ptruding@pcug.org.au

A LOCAL FREEBIE

Peter Lupton is a PCUG member and a sound engineer with NCH Swift Sound in Canberra. He has recently written some software for businesses to use to play their on hold messages (the messages that play to telephone callers when they are on hold or being transferred) and thinks that the software may be useful to some of PCUG's business members.

The software gives users the ability to schedule messages with commence and expiry dates, record their own messages, have messages with variable rotation rates etc. The software automatically mixes the messages with music to play a continuously. It runs in the background on Windows 3.1 and Windows 95 computers. The software comes packaged with professionally recorded male and female voice-overs (generic messages) and licenced music.

The software file is called 'ohmsetup.exe' and can be downloaded at:

www.nch.com.au/ims.htm

Please Note

The files described in this article are on the June 1998 CD-ROM (PsL Vol 6, #6) which is currently on the Bulletin Board: ALL ARE ZIP FILES. Please quote the month or Volume number when inquiring about a file.

The text files, CD1 to 7 inclusive, in Area 1 of the Bulletin Board, are the monthly CD-ROM file lists.

Reminder

Most CD-ROM programs are Shareware. A reasonable time (generally one month) is allowed for evaluation, but if you continue to use a program beyond this time you should comply with the author's conditions that usually require payment of a registration fee. Bear in mind that this is the only way by which an author receives any reward for his/her efforts. Unless otherwise stated registration fees are in US dollars.

and distributed free. Other free software of a more specialist nature is available at:

<http://www.nch.com.au/action>

Peter's contact points are:

Mob: 0412 447 107 Fax: 02 6257 7889

GPO Box 1169 CANBERRA ACT 2601

Australia email: peter_lupton@nch.com.au

NEW AND UPDATED WINDOWS FILES

(Files marked with an asterisk
require Windows 95)

COMMUNICATIONS

32FAX804* (890078 bytes)

32bit Fax 8.04 is a complete faxing package for Win95/NT. This allows printing from any program that can print. Features include a fax/modem tester, support for timed sends, background fax printing, and more. Reg Fee \$?

AUTOSP52 (2423398 bytes)

AutoSpell 5.28 automatically checks email spelling for WAOL, WinCIM, CSNav, Eudora, MS Exchange, Outlook Express, Mail and

News, Netscape Navigator, Netscape Communicator, AKMail Pegasus Mail, Notepad, Notepad+, Editpad and Wordpad. When you choose Send, Outbasket, or File, it checks your spelling before your chosen command. It is highly user configurable. Reg Fee \$10-\$35

CV16 (1719925 bytes)

CV32* (2052147 bytes)

CacheViewer allows the user to select some or all of the text files and images in a folder and then cycle through each file displaying it while allowing easy filing in new folders. This is particularly suited to web browsing, as you can browse through your cache off-line, making decisions as to where to file all the pictures that you have downloaded. Reg Fee \$25-\$30

EMURL10 (1297510 bytes)

Emurl 1.0 allows you to access an email URL using an unmodified web browser. After being prompted for user name and password you can read, write, reply, forward, and store email in folders. Reg Fee \$425



POLITEBX (528396 bytes)

Polite Box 1.0 is an automatic email scheduler that allows you to send pre-programmed messages to pre-selected addresses at pre-selected times. Reg Fee \$44

EDUCATION

31VGW202 (2905692 bytes)

95VGW202* (2786489 bytes)

VAR Grade 2.02 is a powerful and flexible grading and attendance program. It has complete analysis tools, including statistics, plots, and ways to modify grades. Other features include the ability to print seating charts, support for unlimited students/tasks, the ability to weight, average, discard, sum, and require tasks, and more. Reg Fee \$45-\$60

ACERD32 (650297 bytes)

AceReader 3.2 helps teach you to read faster both on and off your computer. This includes reading/comprehension tests broken out by grade levels. It utilizes two technologies: Rapid Serial Visual Presentation (RSVP), and Tachistoscopic Scroll Presentation. This is designed for use by all ages, from professionals to children. Reg Fee \$25

ARITH10 (6472302 bytes)

Animated Arithmetic 1.00 teaches addition, subtraction, multiplication and division for children from 1st through 4th grades. Once ten problems are completed, the student gets to visit the game room. There are puzzles with animation and sound, and a maze game where the child can make their own mazes (which are rewarded with an animation when solved), or make their own mazes. Reg Fee \$19

BWPNCH10 (764557 bytes)

Business Writing Punch 1.00 is a business-oriented writing tutor that helps users learn to write effective paragraphs that persuade, describe, explain, organize, or direct. Choosing from a menu of topics, users develop an idea and write their own topic sentence, body, and conclusion. Program prompts guide users step by step through pre-writing, writing, organizing, editing, rewriting, and publishing. Reg Fee \$49

DSBEE100 (2110433 bytes)

Dynamic Spelling Bee 1.00 can produce random spelling lists and dynamically adjusts a 22,000 word spelling dictionary to eliminate mastered words. Features include the production of a failure list, auto level mode, online help, and a sound option. Reg Fee \$25

GRADBOOK (495534 bytes)

Easy Grade Book 1.12 is a grade book that is set up like a simple spreadsheet. Each class of the grade book is contained in a separate file. The tabbed interface is very easy to use. Reg Fee \$20

KN32V175* (801810 bytes)

KeyNote Music Drills 1.75 helps music students learn to identify the notes of the bass and treble clef, and to locate their positions on the keyboard or guitar finger board. There are additional drills for the alto and tenor clefs. Options include timed drills, the ability to set the drill item count, visual feedback for elapsed time via progress indicator bar, and sound playback. Requires Win95/NT. Reg Fee \$20

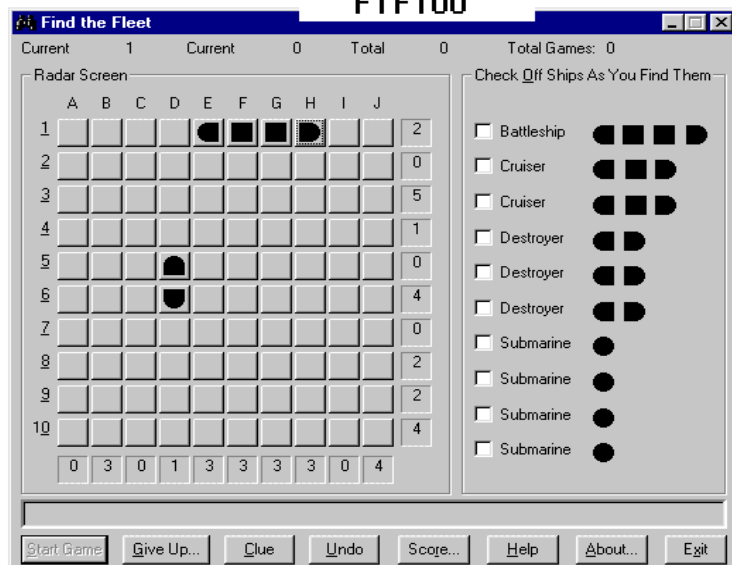
PPUNCH30 (762338 bytes)

Paragraph Punch for Windows 3.0 is a writing tutor that helps students learn different ways to write an effective paragraph: through reasons, details, sequence, example, and cause and effects. Choosing from a menu of topics, they develop an idea, and write their own topic sentence, body, and conclusion. Finished work may be saved to a disk or transferred to a word processing program. Reg Fee \$44

SPNWBS23 (260879 bytes)

Spanish Helper for Business 2.3 helps those who have learned or are learning Spanish and need to concentrate on business Spanish. The interactive quizzing system allows you to learn rapidly using either the contents of its own large database of vocabulary, or by using

FTF100



lists that you compose in order to quiz yourself. Reg Fee \$20

SPNWIN23 (436915 bytes)

Spanish Helper for Windows Level One 2.3 is an interactive quizzing system allows you to learn Spanish vocabulary rapidly. It contains a large database of vocabulary allowing you to form your own quiz lists, as well as an on-line grammar help program. Files created in the DOS version of this program can be imported. This is suitable for both individuals and schools. Reg Fee \$25

STELLA* (2003906 bytes)

Stella 2000 2.0 is an astronomy package for Win95 that allows users to examine realistic skies in real time. Other features include an observing log, live ephemeris, a location browser, and a sophisticated search embracing planets, comets, DSOs, and over 9000 stars. Reg Fee \$45

GAMES

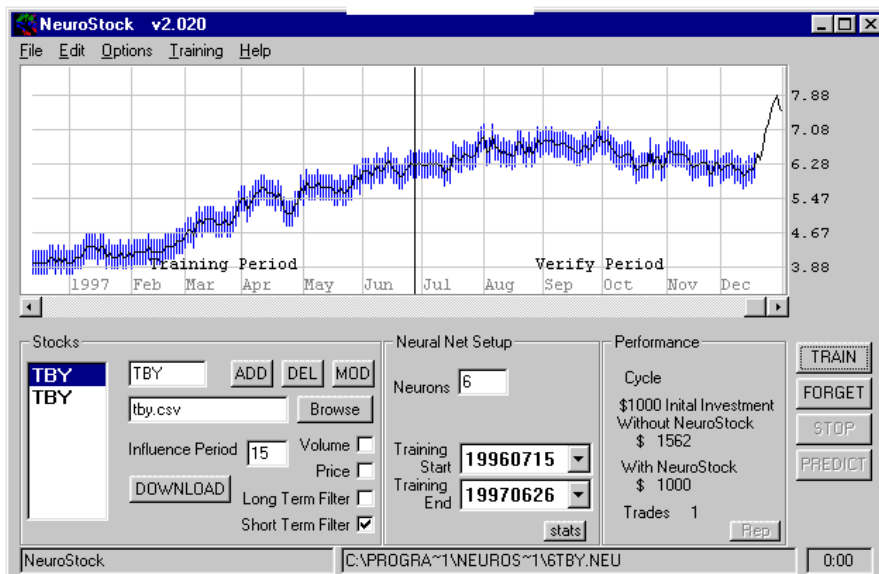
95CDICE* (3238152 bytes)

Moraff's CyberDice 2.00 is a Win95 implementation of a classic 'poker' dice game. Features include 3D ray-traced dice, beautiful photographic backdrops, a MIDI soundtrack, excellent sound effects, and much more. Reg Fee \$?

95ESCAPE* (2528161 bytes)

Moraff's Escapade 2.00 is an animated arcade/logic game for Win95 where you rearrange pieces of each level to proceed. Features

NEURO19B



include support for up to 16-million colours, 30 complete levels, a statistics display to track your progress, digitised sound effects, and much more. Reg Fee \$?

95MTRIS3* (3057511 bytes)

Moraff's CyberTris 3.00 is a fun falling block game for Win95 with excellent graphics, head-to-head competition, and variable board sizes. Other features include support for up to 16-million colours, a high score listing, a music soundtrack, and more. Reg Fee \$?

CADDIE10 (7364434 bytes)

StatCaddie 1.0 is designed to help lower scores, keep track of statistics for each round, and record handicap information for golfers of all skill levels. It helps golfers to see exactly which areas of his or her golf game need attention by tracking such information as fairways hit in regulation, greens hit in regulation, pitch and chip shot to green percentage, up and down percentage, sand shots to green percentage, sand shots up and down percentage, and number of putts. All information is displayed in easy to read and understand reports and graphs. Reg Fee \$25

CARDS12 (914684 bytes)

BVS Solitaire Collection 1.2 is a collection of several solitaire games from Russia. Reg Fee \$10

DAISE105 (1174314 bytes)

Daisy's Garden 2 1.05 is a fun game for WIN31 where you must help Daisy collect all the fruits and flowers on each of six different levels. This is not particularly easy, since there is an annoying inchworm and a greedy marmot hindering your progress, as well as secret trap doors and hidden exits. Other features include fun sound effects and English/German language support. Reg Fee \$15

DETECTIV* (3333036 bytes)

Moraff's Phrase Detective 1.00 is a unique 3D word game for Win95 that challenges you to use all your puzzle skills including spatial perception. The height of each piece changes as you move it around, giving you clues about where it goes. Features include beautiful wooden letter blocks, a classical music soundtrack, stats/high score screen, and more. Reg Fee \$?

FIVEP11* (1755652 bytes)

Five+ 1.1 is an interesting puzzle/strategy game for Win95/NT. You get points by aligning five or more balls of the same colour horizontally, vertically or diagonally. You cannot move a ball unless it has a clear path around other balls. Reg Fee \$11

FTF100* (157147 bytes)

Find the Fleet 1.00 is a fun strategy game for Win95 where you to locate hidden ships. Reg Fee \$10

LEXICON* (4886945 bytes)

Lexicon 1.2b is a unique and original game where you form words from lettered tiles. It features three separate games, each with its own set of rules and tile layouts. The entire game is set within a tropical theme, featuring lush graphics and a fresh, intriguing interface. Features a large dictionary, computer and multi-player opponents, high-scores, online help, demo mode, and more. Requires Win95/NT. Reg Fee \$20

QSWIM201 (3146927 bytes)

Quadle: Swimsuite Edition 2.01 is a jigsaw puzzle for Windows with images a beautiful women in swimsuits. You're not limited to one puzzle at a time - mix 2, 3, even 4 puzzles in one game. Reg Fee \$20-\$40

SJONGG* (1876202 bytes)

Moraff's SphereJongg 4.00 is an unusual version of the ancient oriental game that uses 3D spheres instead of tiles. Features include the ability to save/recall games, support for up to 16 million colours, digitised sound effects and voices, and more. Reg Fee \$?

GRAPHICS

GRAPHC16 (751891 bytes)

Caos Graph 2.0 is an easy to use graph drawing system for Windows. Features include a built-in project manager for drawing multiple graphs, the ability to calculate and display integrals, a built-in calculator, and much more. Reg Fee \$10-\$100

D3DWIZ (145716 bytes)

Direct3D Wizard 1.1 allows you to build up 3D scenes consisting of meshes, decals, lights, and more. You can use the functions which are supported by Direct3D to manipulate all included objects. Position, colour, rotation, textures and more are adjustable for mesh-objects. Light sources of all types can be set and adjusted as you like. Up to 4 different viewports with each 4 different cameras are possible. Requires DirectX 3.0 or above. Reg Fee \$10

ICONEXTR (828484 bytes)

Icon Extractor (EM) extract the icons from any file. Once the icons have been extracted they are shown in the Icon Extractor window. Then they can be saved as separate icon files, bitmap files or copied to the Windows clipboard to be pasted into any document that will accept images. Reg Fee \$20

IE501MAX (2528383 bytes)

IconEdit Pro 5.01 is a 256-colour icon, cursor and animated cursor editor. Special effects include opacity, antialiasing, radial and free rotatable linear gradations, shadows (for 3D effects), contrast control, brightness/saturation control and much much more. Reg Fee \$15

IMPRL101 (8331870 bytes)

imPRESSion Lite 1.01 is a drawing/publishing package for Windows. Features include editable distortion effects, lathing effect, more than 150 gradient types, text flow around and inside any shape, and extensive control over the paragraph text. Reg Fee \$59

PIXSHW39 (708372 bytes)

PixShow 3.9 is a graphics browser that allows you to instantly view JPG, GIF, Animated GIF, BMP, ICO, WMF, and AVI animation files with a single click of the mouse. Its built-in graphics file manager allows you to move, copy, and delete files, add/delete folders, and set file attributes. A powerful built-in search engine allows you to quickly find and view any supported image file on your computer. Reg Fee \$25

RSL (916254 bytes)

RenderSoft Illusionae is a powerful texture-generation engine for making realistic 3D textures. It creates textures using algorithmic approach, manipulating formulae and

displaying them in the graphical form. It gives you the freedom to explore the generated textures, and edit their parameters at any time to suit your needs. Reg Fee \$30

SD95322* (1837902 bytes)

SmartDraw 95 3.22 is a powerful drawing program for Win95. It allows you to easily create great looking flowcharts, diagrams, and business graphics. Features include drag and drop drawing, OLE support, full compatibility between 16 and 32-bit versions, file sharing, the ability to send drawings on mail-enabled systems, and much more. Reg Fee \$49

TRANQUIL* (1467221 bytes)

Tranquility 1.0 is a powerful image viewing package for Win95/NT. It has numerous options to display all of the GIF, BMP, and JPG files in a given directory, including two types of tiling for small images, and scrolling for large images. It even allows you to mark images for subsequent deletion, moving to another directory, editing, or even setting as wallpaper. Includes both a standalone program and a screen saver. Reg Fee \$19.95

MATHS

EQFIT21 (242448 bytes)

EqFit 2.1 has a Regression Workbench to fit equations to your data. You can view the results using graphic plots and any of five

statistical output reports. You can also graph residuals, calculated Y, probability, and more. Reg Fee \$45

QCSETUP* (379110 bytes)

Quick Calc is a small and quick, but powerful little calculator for Win95 that handles the usual addition, subtraction, multiplication and division, but it also handles parentheses and exponents. Unlike other calculators, it takes expressions in a linear fashion. Simply type them in and press Enter to get the answer. Reg Fee \$9-\$13

UCALCWS* (121278 bytes)

UCALC 4.0 is a set of tools for performing calculations in Win95. This includes an expression evaluator, unit converter, a calculus tool, graphing capabilities, and more. Reg Fee \$40

WM4DEMO (660899 bytes)

WinMetric 4.0 is a reference tool for scientists, engineers and other technical professionals. It provides a unit converter which supports 85 units in 51 different categories, a scientific database of equations and physical constants/properties, a periodic table of the elements, tables of the thermodynamic and transport properties of steam and air, and a moist air properties calculator. Other features include a calculator, drag and drop support, clipboard support, and more. Reg Fee \$99

MISCELLANEOUS

CSHWZD10 (95833 bytes)

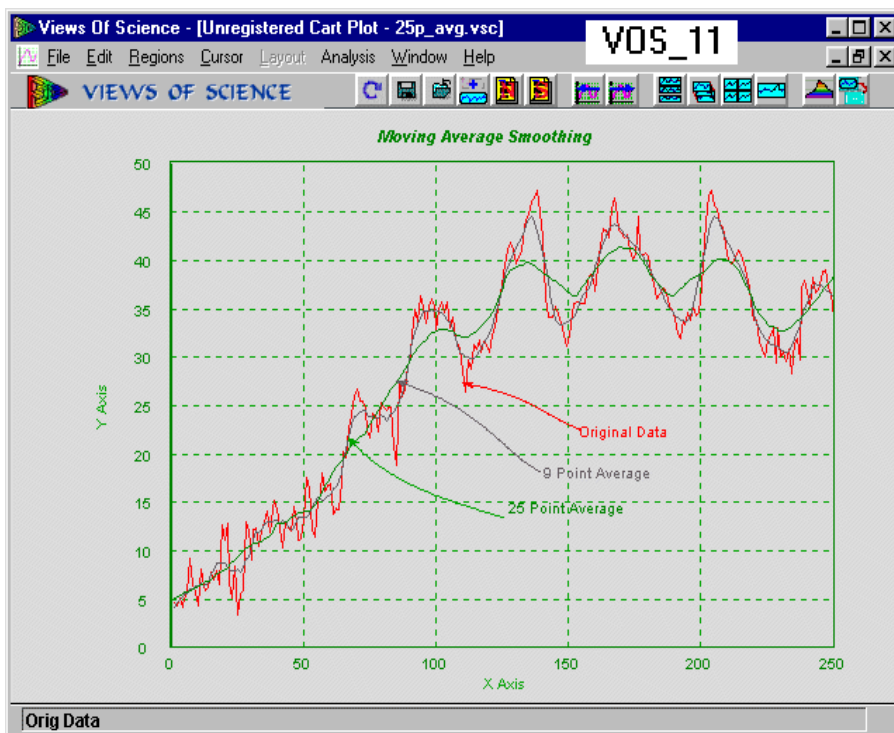
CashWizard POS for Windows 1.0 turns your computer into a cash register. This is fast, easy-to-use, and flexible, with minimal hardware requirements. Reg Fee \$77

GROOVMEC (82885 bytes)

Groove Mechanic 1.0 helps to improve the quality of your old vinyl LP records while getting them ready to record on a CD. It allows you to capture the audio from LPs (or other sources) into audio files on your computer, analyze the quality of the sound, remove the 'clicks and pops' that often plague older LPs, remove the 'rumble' that is sometimes apparent in both new and old LPs, and more. Reg Fee \$30

MUSEZW* (2056617 bytes)

MusicEase for Windows 5.03 is a music score editor which lets you create, edit, play, and print music notation. This includes a WYSIWYG screen-oriented editor which





allows you to see the musical score exactly as it will be printed. Reg Fee \$79

NEURO19B* (1137583 bytes)

NeuroStock 6 2.020 employs the use of neural network technology specifically designed for analysis of a single stock. Requires Win95/NT. Reg Fee \$15+

SM22M16 (1431042 bytes)

SM22M32* (1453210 bytes)

SuperMail for Windows 2.2h is a powerful mailing list package that allows you to maintain an unlimited number of records. It prints labels, envelopes, letters, and reports. Other features include the ability to import/export dBase and ASCII records, zipcode checker, duplicate checker, and more. Reg Fee \$39

SOLACALC (1263177 bytes)

SolaCalc 2.1 helps predict energy losses and gains in passive solar house designs. It's particularly adapted to take account of passive solar energy, both directly through windows and conservatories or via special solar technologies that might be added or installed. Reg Fee \$40

VOS_11 (7754619 bytes)

Views Of Science 1.1 is a comprehensive scientific computing environment for Windows. It includes three modules: Cart Plot — interactive cartesian plotting, 3D Plot —

3D graphics for scientific and mathematical modeling, and Commander — interactive computation and scripting. All the modules work together within a single MDI environment, sharing data, function definitions and common interface elements. Reg Fee \$50+

WEDORG (4276722 bytes)

My Wedding Organizer 2.02a is a comprehensive wedding planner for Windows. You can easily organize and retrieve information about bridesmaids, guest list, and budget. Printing options include invitations, RSVP envelopes, than you envelopes, and place cards. Other features include budget tracking, a running To-Do list, and much more. Reg Fee \$20

SECURITY

CLG12* (1131296 bytes)

Configuration LifeGuard 1.2 makes duplicates of the Win95 configuration files as well as the main system files. These duplicates are stored at an easily accessible but safe place on the hard disk. You can restore any or all of these files at any time from either DOS or Windows 95. This can be a lifesaver in the case of a system crash or installation that throws your system out of whack. Requires the VB5 runtime files. Reg Fee \$15

CRYPTSAF (304776 bytes)

CryptSafe 1.2 is an encryption package for Windows. Features include an easy-to-use interface, a secure delete option, file compression, drag and drop support, and more. Reg Fee \$25

DLOCK* (718338 bytes)

Desktop Locker 1.0 provides a simple way of 'locking' your computer. You simply hit CTL+Space Bar, and a dialog box pops up and asks you for a lock and unlock password. Your computer will remain unusable until you type in the password. Requires Win95/NT. Reg Fee \$?

ENFORCER* (360306 bytes)

Windows Enforcer 5.0 is a system security package for Win95/NT that allows you to specify that certain tasks either never run or always run. It is easy to configure and requires little to no modifications to your current system configuration. Reg Fee \$10

FCODE25 (12796 bytes)

FileCode (MB) 2.5 is an easy-to-use file encryption program for Windows. Reg Fee \$0

FG95* (519514 bytes)

Folder Guard 4.07 allows you to selectively hide folders and/or add password restriction to other resources. This makes folders invisible to any application, Explorer, MS Office, MS-DOS prompt, common dialogs, etc. This is highly customisable, and is suitable for both home and business use. Requires Win95/98. Reg Fee \$30-\$50

OOS* (457433 bytes)

OuttaSight 2.55 can be configured to automatically hide specific applications in Win95/NT. Reg Fee \$0-\$15

RED_320A (2098095 bytes)

RedHand Security Monitor 3.20a will tell you exactly what someone did on your computer while you were away, exactly when they did it, and how long it took. Reg Fee 12 Pnds.

SPY32 (3464764 bytes)

Omniquad Desktop Surveillance 98 2.5b offers a unique approach to the problem of access control, prevention of, or investigation into, use/misuse of computer equipment and software. The program is the software equivalent of a surveillance camera and works by recording desktop activity. Yet it may operate in two modes; either by displaying warning signs in order to discourage misuse, or as secretly monitoring activity. Reg Fee \$55

WINSAFE (770957 bytes)

WinSafe 2.1 prevents unauthorised tampering with Program Manager icons and settings. Requires VBRUN300. Reg Fee \$5

UTILITIES

AMTD (598243 bytes)

TidyDisk 2.0 is a handy utility for cleaning unwanted files off your hard disk. It can clean temporary files, Internet cache files, and any other files you want removed. It can be configured to remove exactly the files you want deleted. Files can be sent to the Recycle Bin, deleted, moved, put in a ZIP file, or permanently deleted. Reg Fee \$20

BOOTLEY (144720 bytes)

Bootley 1.0 reports the number of times your Windows is booted on your computer. Reg Fee \$

BZIPBK52* (808401 bytes)

BlackBoard ZipBak 5.2 is a backup utility for use with Zip and Jazz drives. Features include the use of super high LZH5 compression, password support, a drag and drop interface, the ability to restore to different drives and/or directories, and much more. Requires Win95/NT. Reg Fee \$29

CLPMAG12 (821012 bytes)

Clipboard Magic 1.2 is a Windows Clipboard archiving tool. Any text copied to the Clipboard is automatically archived, and may be copied back to the Clipboard with a click of the mouse. Text may also be added manually. Reg Fee \$0

KSCAN10* (8636116 bytes)

KanjiScan Japanese OCR 1.0 is an optical scanning recognition software package for Win95/NT. It takes a paper Japanese document and converts it to an electronic Japanese text file on an English Windows PC. You'll never manually retype Japanese text into a computer system again. Reg Fee \$495

MAGGLASS (271870 bytes)

MagGlass 1.1 magnifies the part of the screen over which the mouse cursor is. It can be configured in terms of area to magnify and magnification strength. Reg Fee \$0

SCLIP400* (220258 bytes)

SuperClip 4.00 is a Win95/NT Clipboard viewer that can save all or part of the image on the clipboard to a graphics file in BMP, GIF, or PCX format. Reg Fee \$39

STOP10* (449625 bytes)

STOP 1.0 provides you the ability to LOGOUT, RESTART, and SHUTDOWN from virtually anywhere in the operating system. Requires Win95/NT. Reg Fee \$10

SU98* (539822 bytes)

StepUp'98 4.06 contains a set of utilities which make working with Win95/NT easier and faster. This includes a user-customisable StepUp Menu, smart Folder Navigator, sophisticated Menu Designer, and a powerful File Handler. It also provides handy taskbar icons for fast exit, CD-ROM Autorun on/off, and more. Reg Fee \$30

WCPD30 (280048 bytes)

Complete Program Deleter for Windows 3.0 deletes all the files installed by a program's installation process, including subdirectories created by the program, and restores the AUTOEXEC.BAT, CONFIG.SYS, WIN.INI, and SYSTEM.INI files to their previous condition. This can be useful for deleting programs from your hard drive while avoiding the associated nuisances that can sometimes be left behind. Reg Fee \$25

WINSHAPE* (153996 bytes)

WinShaper 1.0 allows you to change the shape of any window on your Win95 desktop. Windows can be shaped as a triangle, a circle, a cross, a heart and many more. This is a fun way to spice up your desktop. Reg Fee \$0

ZSPLI18A* (826602 bytes)

ZSplit 1.8a allows you to easily split big files into smaller ones. Features include auto-detection of remaining free diskette space, the ability to verify split files, the ability to replace file names, and more. Requires Win95/NT. Reg Fee \$10

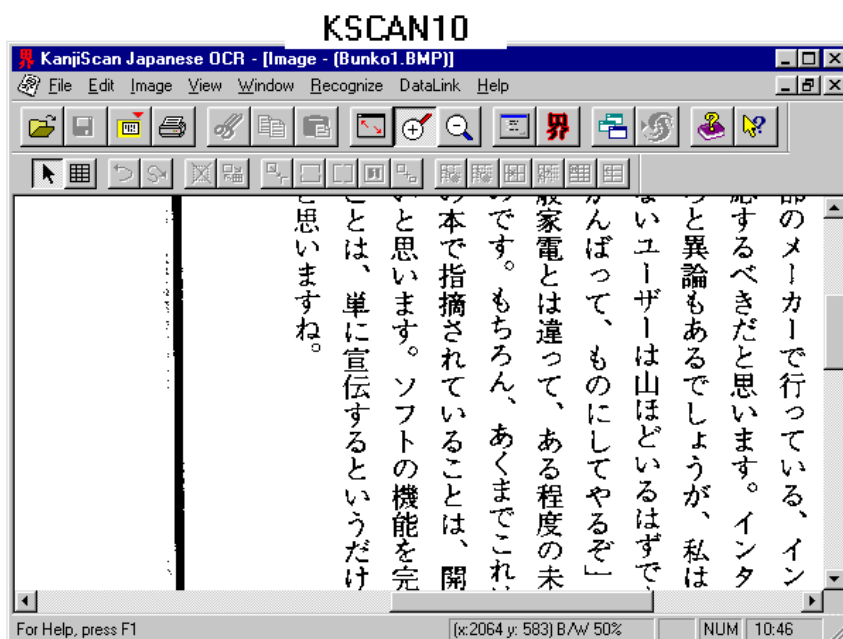
NEW AND UPDATED DOS FILES

CUBISM (298507 bytes)

Cubism is a braincrushing logic game for DOS that challenges you to remove 3-D cubes from the playing field. As you select the cubes, others pop up and there are time and move constraints to add to the difficulty. Reg Fee \$15-\$75

EB113 (1295748 bytes)

Easy Base 11.3 is a relational data management system. It will allow you to create forms, using fields that can be linked to data from other forms. Fields can also be used as cells, similar to spreadsheet programs, allowing you to perform math functions on them. It also includes several options for generating reports. This program can be useful for programming applications for users who may not have any database training. Supports multiple users on a network. Reg Fee \$59-\$299



FPROT300 (739693 bytes)

F-Prot 3.00 scans disks, hard drives, and all network drives for viruses using one of 3 methods: a secure scan which is slow, but makes an accurate identification; full scan which is a little faster, or a quick scan that only searches for known variants. It detects 250 families of viruses. It scans diskettes or your entire system, and allows the addition of a user-defined hexadecimal search pattern with wildcards. It performs an analysis of the memory allocation, programs, and boot sectors. It reports a list of infected files, disinfects files, and renames the infected files so they may not be executed. Optionally scans DOC and DOT files for Microsoft Word Macro-based viruses. Reg Fee \$0-\$20+

POCK53 (190361 bytes)

PocketD Plus 5.3 is a powerful, flexible command-line driven file utility with over 120 options. Features include directory listing, optimised file copying to multiple disks, searching across multiple drives and subdirectories, viewing of text or hex files, advanced string searching, safe file and subtree copying and moving, advanced wildcard matching,

attribute and date/time modifying, file list browsing, viewing and searching of archived files, PKLITE/DIET/LZEXE detection, 37 user-defined parameters, display of program execution size, multi-key sorting, multiple display formats, environment variable and execution template allowing other utilities to be emulated and more. Reg Fee \$49-\$68

SPANBDOS.ZIP 197405 bytes)

Spanish Helper for Business (DOS) 1.1 is designed to help those who wish to concentrate on the business side of learning Spanish. It is an interactive program, quizzing you in both multiple-choice and fill-in format. You can make your own lists of vocabulary. Reg Fee \$20

Y2KV30A (49484 bytes)

Year 2000 Compliance 3.0a checks your system for year 2000 compliance. Reg Fee \$5

ZEROIN (32646 bytes)

ZeroIn 2.7 is a replacement for the DOS 'change directory' command that allows you to abbreviate directory names to just the first letter. If there is more than one match you can choose from a list. Support is provided for Win95 long filenames. Reg Fee \$15

DEFINITION: Computer - A device designed to speed and automate errors. press — to continue ...

Smash forehead on keyboard to continue.....

ASCII stupid question, get a stupid ANSI! E-mail returned to sender — insufficient voltage.

Help! I'm modeming... and I can't hang up!!!

All wiyht. Rho sritched mg kegtops around?

Error: Keyboard not attached. Press F1 to continue.

DOS Tip #17: Add DEVICE=FNGRCROS.SYS to CONFIG.SYS

Press any key... no, no, no, NOT THAT ONE!

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completion in 7 days

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BOOK REVIEWS

Web Publishing with Microsoft FrontPage 97 by Ken Fermoyle

I know, I know, FrontPage 98 is out already, so why review a book on FrontPage 97?

First, a lot of people are still using FP 97. Second, a new edition that includes coverage of FP 98 will still be substantially similar to the 97 version, but with extra added attractions. Third, author Martin S. Matthews establishes his credentials in this earlier book...to the extent that I would buy the new one sight unseen.

I started using the FrontPage application first, then got the book to review. Reversing the procedure would have been a smart move. FrontPage is not an extremely difficult program, but it is more capable - and thus more complex - than Web building programs I had used before eg, Adobe PageMill. The structure of the book would have helped me approach FrontPage in a much more organized fashion.

As the author says, the book 'leads you through the planning, creation, deployment, and maintenance of both intranet and Internet web sites with FrontPage.' Matthews includes generous helpings of real-world examples and step-by-step instructions.

Two criteria I always use in judging the quality and usability of any software user's manual are: how well it is illustrated (with figures, not pretty pictures), and whether or not it is well-indexed. This book scores highly on both counts.

Figures, mainly screen-capture shots, are used profusely and illustrate the instructions clearly. With them, you always know where you are in any procedure. You also know when you've gone astray because your screen display won't match the one in the book. Figures blend with the step-by-step instructions very well, making the steps easy to understand and follow.

The index covers more than 15 pages of rather small type (keep reading glasses or a magnifier handy if you have tired old eyes like mine), and there is a goodly amount of cross-referencing.

The early part of the book contains basic information, as the chapter headings indicate: Exploring FrontPage, Using Wizards, Using Templates, Creating & Formatting a Web Page from Scratch, Using Tables & Frames, Working with Forms. The first chapter is packed with interesting and informative detail about the Net and the Web. Matthews' explanations of terms and concepts are extremely clear. His explanation of TCP/IP is one of the best and easiest to understand that I've read.

Further along, the book delves into more advanced topics: Using WebBots, Importing & Integrating Files, Working with HTML, and Databases and Security on the Web.

Then comes Activating Your Webs and, a bit later, Publishing Your Web Pages, critical areas for novice site builders. Most of us have had at least some experience with creating pages for print, but moving pages onto the Web instead of a printer is

whole 'nother ballgame! Matthews' step-by-step instructions on how to post your pages to a Web host are detailed and easy to follow. He covers posting both to hosts with FrontPage Server Extensions installed and to hosts that don't offer such extensions.

One thing I liked very much about this book is that it very successfully covers a wide range of users and types of Web sites. It includes information to help novices build sites of simple to medium complexity, as well as help for experienced users whose goal is to create more exotic sites for their businesses. I know from experience that this is not easy to do. Of course, the fact that Matthews has almost 700 pages to work with helps a lot.

Summing up, I wouldn't hesitate to recommend this book, or later editions from the same author and publisher. It has earned shelf space in my office.

Title: Web Publishing with Microsoft FrontPage 97

Author: Martin S. Matthews

Publisher: Osborne McGraw-Hill (www.osborne.com)

Price: \$29.95 USA, \$42.95 Canada

The Internet Clinic

Internet Clinics are normally held at the PCUG Centre, Northpoint Plaza Belconnen the first Saturday of each month 9.30am to 1pm. There is no cost involved.

So if you (or another PCUG member you know of) are having problems you (or they) will be welcome to attend. It is suggested that you call the PCUG Centre on the day and check with the staffer that we are not overloaded before coming along.

To get a problem on your PC resolved it is essential that you bring *all* of the following items with you:

- PC and Monitor, plus all interconnecting cables
- Mouse
- Keyboard
- Modem
- Modem power supply
- Modem cables - from PC to modem and from modem to telephone socket
- Modem and PC manuals & documentation
- All of your software disks -
i.e Win3.1. or Windows95 disks/CD

If you don't have a PC to "fix" but you want to get some guidance on some particular aspect of using TIP, please feel free to come along and simply talk to us.

Clinics are not a free software/modem installation service. We do expect you to have made a reasonable attempt at getting the software installed & working.

dschwabe@pcug.org.au

WHAT'S NEWS?



Compiled by Malcolm Morrison

ICQ Sought Out

Significantly advancing its multiple-brand strategy, America Online, Inc. has announced that it has acquired Mirabilis Ltd, the Israel-based company which has used its ICQ instant communications and chat technology to rapidly build a Web-based community of more than 12 million registered users worldwide.

Under the terms of the acquisition, America Online paid \$287 million in cash to purchase 100% of Mirabilis's assets. Starting in its fiscal year 2001, AOL also will make contingent payments of up to \$120 million over three years based on growth performance levels. Mirabilis will continue to be based in Tel Aviv and operated by its founding team as a free Web-based service with its own brand identity.



Launched in November 1996, ICQ's instant communication and chat technology informs users when family, friends and business colleagues are online and enables them to exchange messages in real-time to help its users build their own communities. ICQ also gives its users the ability to play games and exchange files and URLs. More than 12 million people have registered to use the technology, compared to 11 million just one month ago.

"To our wonderful ICQ users"

This is how ICQ announced the move to its many fans:

"All of us at ICQ have been deeply moved in recent days by your overwhelming response to reports that our service would be acquired. Never before has the web witnessed anything like your expressions of care and concern about the future of this unique service that we have created together.

"In just 18 months, we have created together one of the world's largest Internet communities.

"So to ensure the long-term growth of our service, we began to look for a partner for ICQ. Of the many fine companies we spoke with none expressed the enthusiasm for and trust in our product as the people of AOL, and we came to feel that this service would be the ideal home for ICQ.

"Because AOL has asked us to continue to run the service exactly as before, we don't intend to make any changes in our policies. We will continue to offer the software and the service exactly under the same terms and conditions as before (time limited free beta). And of course, you will still be able to use ICQ no matter who your ISP is, or where you live. No longer do you search in vain for friends & associates on the net. ICQ does the searching for you, alerting you in real time when friends & colleagues sign on." ICQ is available - free of charge - to all Internet users through its Web site, www.icq.com

Samsung Flattened



The TFT LCD monitor, the latest and most up-to-date product in the Samsung SyncMaster family of monitors, boasts a screen 1024x768 that approximates the CRT monitor in both clarity and brightness, and is one that is highly capable or projecting on image that is truly elaborate as well. The SyncMaster TFT LCD monitor also has a perfect display which projects a better image on the screen because it is distortion-free and reduces reflected light to a minimum.

Apple Bridges the Gap

Remember those pie-in-the-sky predictions about the future, and how you'd be surrounded by a bazillion gadgets that would all be connected to your computer? Well, it doesn't sound quite that farfetched anymore. Because Apple's got the wiring done—for Macintosh and Windows. Learn about the benefits of FireWire technology from Zane Rutledge and Rich Binell, two creative professionals who think different.

FireWire Heats Up the Digital World

Looks like convergence is a happening thing, thanks to Apple technology. Time was when you had this huge gap between PCs and consumer electronics—call it the great divide. The problem had been to find a way to transfer huge amounts of real-time digital data from consumer electronics devices like video camcorders into Macs and PCs. The slow-as-molasses SCSI bus just wasn't cutting it; dropped frames, the need for buffering, and out-of-sync sound made it a less than ideal solution. But now there's a way to transfer massive amounts of data between PCs and consumer electronics at phenomenal speeds.

FireWire bridges the gap between PCs and consumer electronics. FireWire is a serial data bus that can move large amounts of data between computers and peripheral devices at transfer rates of 100, 200 and 400 Mbps (12.5, 25 and 50 megabytes per second, respectively). At such speeds, you can transfer video data into your Mac as a pure digital signal - without going through the usual digital-to-analog and analog-to-digital conversion process.

FireWire was developed at Apple Computer, and was adopted by the Institute of Electrical and Electronic Engineers as IEEE 1394, the industry standard serial data bus. One of the really cool things about FireWire is that it's a platform-independent technology. That means it works with both Macs and PCs. That's why so many in the computer industry - including Microsoft and Intel - have accepted the FireWire standard.

Sony, JVC, Hitachi, Panasonic, Sharp and Texas Instruments have FireWire-enabled devices in stores or in the works, and consumer and professional products available in the near future will include digital VCRs, home entertainment systems, music synthesizers, set-top boxes, scanners, disk drives and other good stuff.

A slew of FireWire-ready offerings are already available: Adaptec's AHA-8940 host adapter enables Macs and PCs to connect to FireWire-friendly digital video camcorders, digital cameras, colour printers and DVD players.

FireWire is way faster than SCSI and offers numerous other advantages as well, notes Binell: "One obvious benefit with FireWire is that the cables are as simple to plug in as a telephone cord. FireWire cabling needs no device IDs, no jumpers, no dip switches, no screws, no latches, and none of those butt-ugly terminators."

Eye in the Sky Gives You the Statue of Liberty



Microsoft TerraServer, the world's largest Web database and most detailed global atlas, is putting the world at consumers' fingertips - literally. Microsoft has officially unveiled the site as part of Federal Enterprise Day, an event co-hosted by Microsoft and Compaq Computer Corp - a partner on the TerraServer project - for government agencies building or augmenting computer networks. Microsoft TerraServer is a prime example of how technology is giving people everywhere direct and easy access to an incredible wealth of information.

The new Web site contains more than a terabyte (one trillion bytes) of compressed aerial and satellite photos of the Earth. Microsoft TerraServer will benefit consumers and academics, as well as government and corporate users, by letting them view and download detailed geographic photos with resolutions as close as 1.0 meters - close enough to clearly distinguish

buildings and cars, but not people. The site showcases the cooperative efforts of leading industry participants and government agencies - including former Cold War adversaries - on a project of unprecedented scale. Available now at www.teraserver.microsoft.com

Sprint in Race

Sprint announced in June a revolutionary new telecommunications capability that can provide homes and businesses with virtually unlimited bandwidth over a single existing telephone line for simultaneous voice, video calls and data services.

"This truly is the Big Bang that expands the universe of what telecommunications can do in our homes and businesses," said Wihomes



and businesses," said William T. Esrey, Sprint's chairman.

The new capability, developed under the code name Project FastBreak, is not a single technology but a combination of numerous technological advances. "As a result, we are introducing tomorrow's network today - the Integrated On-Demand Network (ION)," said Esrey.

A household or business will be able to conduct multiple phone calls, receive faxes, run new advanced applications and use the Internet at speeds up to 100 times faster than today's conventional modems- all simultaneously through a single connection. The need for multiple phone lines will be eliminated, and applications such as high-speed online interactive services, video calls and telecommuting will be readily accessible and less costly. Use of the Internet will be so fast that typical pages on the World Wide Web will pop up almost instantaneously. At home, consumers no longer will be required to buy additional telephone lines to make multiple voice calls and be online at the same time. Businesses will no longer be required to manage numerous complex networks but can rely on a truly integrated

network that consolidates voice, video and data traffic while reducing costs.

The announcement is the result of five years of confidential work. "We saw where the trends were pointing and quietly began designing the network of the future. We've invested more than \$2 billion in building the network that will handle the advances we're announcing today," Esrey said.



Sprint has been privately testing the revolutionary Integrated On-Demand Network capability with both businesses and consumers for the past year. An initial roll out to large businesses will begin later this year. The service will be generally available to businesses in the US in mid-1999, with consumer availability there late in 1999. See www.sprint.com for updates.

Bridge the OCR Gap

With the new Optical Character Recognition (OCR) Software from Xerox Scansoft, Inc., you can edit printed text without retyping, turn pricelists into spreadsheets or create HTML Web pages from printed pages quickly, easily and above all accurately. New TextBridge Pro OCR is now up to 82% more accurate than previous versions.



TextBridge Pro 98 scans any printed page-fax, photocopy or article-into your PC more accurately than ever before. You can have your article proofread and then scan it directly into your favourite Windows Office applications or even into Adobe PDF.

The INTERNET Project

Applicant Details (mandatory)

First Name _____

Last Name _____

Principal Organisation

AUUG PCUG

Membership Number _____

I, the applicant, declare that I have read the terms of this application, and affirm that the details that I have provided are correct.

Signed: _____

Existing Accounts

Change from LIMITED to FULL ACCESS

Renewal for FULL ACCESS - 12 months

Current Login Name _____

New Accounts

NEW Application for FULL ACCESS

NEW Application for LIMITED ACCESS

Login name request, in order of preference (optional)

1. _____

2. _____

3. _____

Your login name must be 2 to 8 characters long. It may contain only letters and numbers, and **MUST be clearly based on your real name**

Payment (Full Access only)

Please make cheques payable to:

PC Users Group (ACT) Inc.

Payment: 12 months: **\$120.00**

6 months: **\$65.00**

3 months: **\$35.00**

Method of payment: Cash Cheque

Visa Bankcard Mastercard

Card Number: _____

Expiry Date: ____/____/____

Name on Card: _____

Signature: _____

PCUG Office Use Only

Processed by Accounts: ____/____/____

Signature: _____

Important Notes - please read

1. Access to The Internet Project is available only to members of PCUG or AUUG and is governed by the Internet Project Acceptable Use Policy, copies of which can be obtained at the PCUG Centre, or downloaded from the PCUG BBS or from The Internet Project.
2. The Internet Project is managed and administered by volunteers. The Internet Project aims to offer affordable access to as many members as possible, allowing members to experience all the resources of the Internet. *No minimum level of access or service is offered or guaranteed.*
3. There is a limit of one Internet account per non-corporate membership. Corporate members may sponsor up to three individuals, who are then *personally* responsible for the operation of their accounts. Please complete one application for each person.
4. Part of your email address will be determined by the principal organisation. If your membership of that organisation expires, so too does your membership of The Internet Project. In this event, no refunds for unused allocation will be made.
5. The Internet Project reserves the right to alter prices and services offered at any time. Fees paid for Internet access are non-refundable and non-transferable.

Access Categories

6. Note: Hours debited do not necessarily equate to real hours on-line; time allocation will be debited in a *non-linear* fashion depending on the amount of time spent on-line in any given day. The debit rate is set from time to time by the Internet Project Management Committee. For more details, refer to <http://www.tip.net.au/tip/charging>
7. Limited Access
 - a) Limited Access provides terminal-based email and news only.
 - b) Limited Access is free on application.
 - c) In any calendar year, calculated from the 1st February, Limited Access provides up to 100 'hours' usage.
8. Full Access
 - a) Full Access provides PPP or SLIP access and includes email, news, WWW, etc.
 - b) Advance Access is not free. Current rates are shown at left with up to 25 'hours' per month usage over the period.
 - c) When your Full Access subscription expires OR you use up your hours of access (whichever is earlier), you will be required to purchase another subscription.
 - d) Full Access users also receive a Limited Access allocation - see above.
9. All users joining The Internet Project receive a one-off, free five hour allocation of Full Access.

Collecting Your Login Details

10. For existing members, please allow up to two weeks for your application to be processed.
11. Login details can be collected - *in person by the applicant* - from the PC Users Group Centre. We recommend that you phone the Centre first to check that the details are waiting for you.
12. You (and your parent/guardian if you are under 18 years of age) will be required to sign an Acceptable Use Policy Declaration when you pick up your login details. Proof of identification will be required at that time.

Member Services

*These special offers and services are only available to PCUG members.
Please bring your membership card with you when collecting orders.*

Disks & Tapes

We offer high quality disks and tape cartridges in various formats at very reasonable prices.

Disks & tapes are available from the PCUG Centre Monday, Wednesday & Friday 10am to 2pm or between 9am and 5pm on weekends.

BBS Access

New members wishing to access the PC Users Group (ACT) InterActive Bulletin Board Service (BBS) should dial (02) 6253 4933 and create an account on the system. Once the main menu is presented, select the 'Goodbye' option followed by the 'Yes' option to leave a message to the Sysop.

In this message state your membership number (from your card or magazine address label) and request an access upgrade. This will usually occur within a few days.

Shareware

Members have access to a huge selection of 'shareware' software. The PCUG subscribes to a CD-ROM which provides over 250 Mb

of new and updated software titles on each monthly CD.

One complete section of the permanent library is also contained on each CD-ROM. In addition, there are many programs on the PCUG BBS which members have uploaded or which come from other sources.

This software is provided as 'shareware'. If you continue to use it, you must register the software with the author. The Group does not 'sell' the software - it charges a fee to cover the cost of obtaining the software, maintaining the library and copying the software to the member.

Computers are available at the Centre which are connected to the BBS enabling members to download software.

Hardware & Video Library

The hardware and video library is located at the PC Users Group Centre. Items may be collected and returned on Saturdays and Sundays between 9am and 5pm (loans are for

one week). Please bring your membership card with you.

The library provides access to equipment which members would not normally have readily available. Most items have instructions manuals and software where appropriate. Modems do not include software; check the Shareware Library for suitable packages. Items may be borrowed for one week. There is no charge, but you must collect and return the items yourself.

Equipment available includes:

- modems (33.6k and 14.4k)
- zip drives.

Videos include:

- Developing Applications with Microsoft Office
- Using Windows 95

Stuffed Again

We would like to thank
the following members and friends
for assisting with
the mailing out of our Journal.

Carlos Amat
Bruce & Andrew Bartlett
Bruce Black
Owen Cook
Bill Curnow
Eddie, Sharon & Raymond de Bear
Kama-Jay Myles & Eddie De Bear
Graham Dietrich
John Dyer
Rufus Garcia
Anne Greiner
John Hempenstall
Emil Joseph
Neville Maddern
Don Nicol
Peter Roberts

Rod Smith
John Starr
Ted Tregillgas
Gordon Urquhart
Marion Van Wely
Peter Watney
Sylvia & Lew Yardley

We are *always* looking for volunteers to assist us with the 'stuffing' of our journal. We start around 5.00pm (latecomers are welcome) *usually* on the 2nd last Monday of every month and are generally finished by 8.00pm. Refreshments are provided. If you would like to help, please ring Petra Dwyer at the PCUG Centre on 6253 4911.

Next Stuffing

5.00pm **Monday 24 August 1998**
at Northpoint Plaza, Belconnen.
(see map page 3)

**We now have a
Giveaway Table at the
PCUG Centre.**

**If you have any SMALL
items of computer related
equipment (software or
hardware) that you no
longer need or use and
don't want to throw
away, put them on the
table and someone else
may find a use for them.**

**Just bring them to the
Centre when it's open and
we'll pass them on
for you.**

Special Interest Groups

Coffee & Chat

The Coffee and Chat Group meet at the PCUG Centre in Belconnen on alternate Tuesdays from 10.30am to 11.30am. The doors are open from 9.30 to 12.00 for 30 minutes of individual discussion before and after the meeting. The dates of these meetings are shown in the Calendar of Events.



Bytes

The Bytes SIG is designed for those who like to talk about computing over a meal. It meets from 6 pm at the Asian Bistro, Australian National University Union, on the PCUG meeting nights. There are no Bytes SIG meetings in November, December, or January. Contact person: Andrew Freeman Phone: 6258 7411 Email: afreeman@pcug.org.au or WWW at <http://www.pcug.org.au/~afreeman/cvsig.html>

AutoCAD

Geoffrey May 6295 5942 Monday-Fri 4-5pm. Please call for details.

C/C++

Peter Corcoran . peterc@pcug.org.au 2nd Tuesday 7.30pm PCUG Centre

GUI Developers

Peter Harris 6287 1484
pharris@pcug.org.au Please call for details

The Investment SIG

The group meets at the PCUG Centre at 7.30pm on the fourth Thursday of every month except for December to discuss investment affairs, especially the stock market and share ideas and information. Matters covered may be someone's hot stock, or a tax problem or an interesting Web site, and sometimes a software demo. We are looking for volunteers to present brief reviews of a favourite stock. Contact Mick Preskett ph 6252 5036.



The OS/2 SIG

An enthusiastic forum for those operating or interested in OS/2 Warp. Meetings include wide ranging discussion and interesting hands on demonstrations. Meetings are held on the third Thursday (except January) at 7.00pm for 7.30pm at the IBM Building 8 Brisbane Ave, Barton.

Contact David Thrum Phone 6201 8806 (bh). Full details about the OS/2 SIG can be obtained from <http://www.pcug.org.au/~aacton/os2/welcome.htm>.



The Delphi SIG

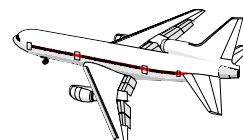
A lively forum for software developers who are working with or interested in Delphi. Our meetings include wide ranging discussion and interesting hands-on demonstrations. Come and see why Delphi is RAD! Some of our recent meetings have discussed Delphi components, best shareware tools, database applications, and HTML tools. Meeting 3rd Tuesday of each month 7.30pm at PCUG Centre. Convenor David Gray email graydr@pcug.org.au. You are welcome to also subscribe to the PCUG Delphi mailing list by sending message 'subscribe act-delphi-l@pcug.org.au [your email address]' to Majordomo@auug.org.au

Networks

Garry Thomson 6241 2399
gthomson@pcug.org.au Thursday after main meeting Please call for venue.

Computers and Vegetarianism

This SIG is designed for those who have an interest in both computers and vegetarianism. It generally meets with the Bytes SIG. No meetings are held in November, December, or January. Contact person: Andrew Freeman Phone: 6258 7411 Email freeman@pcug.org.au or WWW at <http://www.pcug.org.au/~afreeman/cvsig.html>



Flight Simulator

Meets 1.30 - 3.30 on Tuesday afternoons following Coffee and Chat at the PCUG Centre. Enquiries welcome.
Roger Lowery (02) 6258 1583
lowery@pcug.org.au

Internet Daytime Demo and Discussion SIG

Meets every second Monday at the PCUG Centre from 10.00am to noon. We meet to discuss internet issues, software, sites (and anything else of relevance), and demonstrate, on Centre equipment, selected software and techniques. The meeting starts with informal discussion and coffee, followed by a more in-depth look at a particular topic of interest. There is also time for discussion (and hopefully solving) of members problems with the internet. A home page for the SIG is at <http://www.pcug.org.au/~amikkels/intddd.html> Enquiries or suggestions for topics are welcome at amikkels@pcug.org.au.



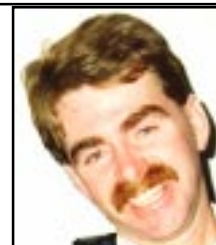
Linux User Group

Stephen Rothwell 6231 6648 (ah) Stephen.Rothwell@canb.auug.org.au 4th Thursday 7.00pm Room N101 Computer Science Dept ANU.

Please email any changes in contacts, venue or information about SIG activities by the first Friday in the month of publication to pcug.editor@pcug.org.au.

Training News

by Peter Elliott



The program for 1998 has been adjusted to meet the demand for particular courses especially Windows95 and Internet courses. PCUG Training is able to, and willing, to conduct a variety of courses in other areas of computing. If you have an interest in a particular computer course and it is not scheduled, contact Petra at the Centre at the Centre and let us know

Our training courses are very popular. Unfortunately, some people book and then do not turn up for their course. Someone on the waiting list for the course could have filled the spot left vacant. If you have booked for a course and are unable to attend please let Petra know as early as possible so that another member can attend.

Courses

The **Full Access intro to the Internet** course is an introduction to the programs used to access the World Wide Web including how to download files, send and receive e-mail and participate in news groups. If you would like to attend the course, you will need Full Access (Advanced Access) to the Internet.

Please note that from July onwards Netscape Communicator 4.05 will be used to teach this course. There will still be courses conducted that is specifically designed for members who use Netscape3, Eudora and Agent to access the Internet (see September 13 below).

MYOB: In late early September (the August course is oversubscribed) an introduction course on Mine Your Own Business (MYOB) will held at the Centre. MYOB is world renowned business software package. The course is designed for members who have an interest in keeping their business records together using an accounting software package.

Microsoft Word 7- Intermediate: In late September an intermediate course on Microsoft's Word7 will be conducted at the Centre. This powerful word processing program is ideal for those members who would like to learn more about word processing. Word 7 forms part of the Microsoft Office suite and offers the ability to create Word documents, templates, letters and linking or embedding (OLE) Word into other Window's applications.

Future Courses

Visual Basic Programming - Intro. This course will be conducted at the Centre on Sunday 11 October 1998. Petra can accept bookings from members who wish to nominate now.

MYOB: There will be an intro to MYOB course conducted at the centre on Sunday 25 October 1998. Petra can accept bookings from members who wish to nominate now.

All courses are held at the PCUG Centre, Northpoint Plaza, Belconnen - maximum 8 people.

Courses cost \$35 unless otherwise indicated. Full day courses run from 9.30am to approximately 3.00pm. AM Courses commence at 9.30am. PM courses commence at 1.30pm.

	Date	Day	Course	Length
Aug	1	Sat	Sixteen Bits Layout Day/Internet Clinic	Clinic:Morning
	2	Sun	Word7 - Intro	Full Day
	8	Sat	MYOB	Full Day
	9	Sun	Win95 - Intro	Full Day
	15	Sat	Visual Basic Programming - Intro	Full Day
	16	Sun	Intro to the Internet - Full access (ideal for beginners)	Full Day
	22	Sat	Excel 7 - Intermediate	Full Day
	23	Sun	Designing your own web page - Intro	Full Day
	29	Sat	Intro to the Internet - Full access (users with some experience)	Full Day
	30	Sun	Win95 - Intro	Full Day
Sept	5	Sat	<i>Sixteen Bits</i> Layout Day/Internet Clinic	Clinic:Morning
	6	Sun	Win95 - Advanced Users	
	12	Sat	MYOB	Full Day
	13	Sun	Intro to the Internet - (for members who use Netscape 3, Eudora and Agent) - Full access	Full Day
	19	Sat	Win95 - Intro	Full Day
	20	Sun	Desktop Publishing - Intro	Full Day
	26	Sat	Intro to the Internet - Full Access (ideal for beginners)	Full Day
	27	Sun	Word7 - Intermediate	Full Day

Vendor Discount Scheme

The following local vendors offer discounts to PCUG members

- Present your PCUG membership card when making a purchase
- Benefits may not apply to some sale items
- The PCUG does not necessarily recommend or endorse the products being offered

If you offer a discount to PCUG members and are not in this list, please contact our advertising manager listed on page 2.

BUSINESS	SERVICES/PRODUCTS	PHONE/FAX/EMAIL	ADDRESS	DISCOUNT
Accountants				
Peng Lee BA, BEc(ANU), FCA Chartered accountant Registered tax agent Holder of Certificate of Public Practice	Accounting and taxation services <i>A fee schedule published 1 year in advance will be forwarded upon request</i>	Ph: 6258 0156 Fax: 6258 0157 Mobile: 0419 625 801 Email: leep@pcug.org.au	6 McGuinness Place McKellar ACT 2617	10% discount off the published fee schedule to PCUG members
Lesley Piko Certified practising accountant, registered tax agent	Personal and business taxation services General accounting services	Ph: 6288 8888	Suite 1 17 Trenerry St Weston ACT	15% discount off quoted fee
Books				
Collins Booksellers	A wide selection of computer titles for the novice and also advanced computer user	Ph: 6251 4813 Fax: 6251 3926	Belconnen Mall	10% discount off computer book purchases only
Daltons Books	No. 1 for computer and business books	Ph: 6249 1844 Fax: 6247 5753	54 Marcus Clarke St Canberra City	10% off RRP of computer books
Computer related				
Ivan Kramer Web Design	Proven experience, quality graphics, artistic talent. Publish online @ a fraction of the cost of print.	Ph: 6259 0500 Mobile: 0413 967 045 Email: ivan@pcug.org.au www.pcug.org.au/~ivan/	Canberra	\$200 (66% off normal price of \$600) for all graphics, logo, design, up to 15 pages
ACT Valley Computer Repairs	Repairs, upgrades, new systems, software installation. Low rates Open 7 days	Ph: 6294 2592 Mobile: 019 323 435		10% discount on upgrades and repairs
Amalgamated Business Machines		Ph: 6280 4887	65 Kembla St Fyshwick	5% discount on repairs
Capital Simulations		Fax/message: 6258 0110	PO Box 329 Belconnen ACT 2616	Free postage and handling (normally \$4) and 2 free modem opponents 'wanted' notices (normally \$10)
Clarion Database Systems	Computer consulting Business applications, development Software sales	Mobile: 041 108 7754		10% off RRP on Microsoft and other vendor products and consulting services
The Cartridge Factory		Ph.: 6239 5259	Canberra Business Centre 49 Wentworth Ave Kingston	10% discount on remanufactured laser toner cartridges 10% discount on inkjet refill kits No discount available on new ink or toner cartridges

- Present your PCUG membership card when making a purchase
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- The PCUG does not necessarily recommend or endorse the products being offered

If you offer a discount to PCUG members and are not in this list, please contact our advertising manager listed on page 2.

BUSINESS	SERVICES/PRODUCTS	PHONE/FAX/EMAIL	ADDRESS	DISCOUNT
Computer related (cont)				
Bettowind & Taltech Solutions	Prompt, guaranteed, fixed price repairs to monitors and terminals	Ph: 6239 1043	Unit 5, Centrecourt 1 Pirie St, Fyshwick	5% discount
Hi-Micro Computers		Ph: 6280 7520 Fax: 6280 7540	6/18 Whyalla St Fyshwick	5% discount on accessories and upgrade installation
L & S Associates		Ph: 6257 7555	69 Paterson St Ainslie	Special price on any Microsoft product: dealer price plus 5%
NCH-Swift Sound	Email to wav Professional voice overs, music and SFX for multimedia, IVR, games, software	Ph: 6281 6124		25% discount to non-corporate members
PE Computers & Software Solutions	New systems Upgrades Hardware and software installation, setup and home PC support Software tuition including Win95 and Internet software	Ph/fax: 6258 9806 Mobile: 015 484 711 Email: pelliot@pcug.org.au		5% discount on all new systems and upgrades 20% discount on installation, tuition and home PC support
Rob's Computer Help Desk	Telephone and on-site help for <i>all</i> your computer and support needs	Ph: 6292 3211 (24 hours/7 days)		5% discount on consulting services
The Software Shop	Suppliers of all business, educational and personal software, plus selected hardware.	Ph: 6285 4622	42 Townsend St Phillip	5% discount off our already low prices
Sproatley Computer Services Pty Ltd	Upgrades New and used PCs MYOB specialists Software installation 24 hour help desk	Mobile: 0412 231 224 Fax: 6231 3605		10% discount on all services
Michael Vetz/Mobile PC Support	Home PC support available for all PC problems including upgrades and tuition at your place – all hours	Ph: 6251 2184 Fax/Message: 62512184 Mvetz@pcug.org.au	P.O. Box 485 Belconnen ACT 2617	Discount of \$25 per hour – maximum charge \$50
World Wide Web Consultants Canberra (W3C2)	Your key to the Internet. Training, consulting and web site services.	Ph: 02 6292 3211 Fax: 02 6292 3914 Mobile: 019 440 608 Email: fcmoore@w3c2.com.au	PO Box 5145 Chisholm 2905	5% to a maximum of \$100 on web site services.
Other				
ANU Union Asian Bistro			Upstairs, Union Building, Union Court, ANU (next to main meeting venue)	Union member discount on PCUG main meeting nights ONLY
Green-Grass Mower Service	Lawn mower service, spares and repairs	Ph: 6291 1458	8 Hutchinson St Monash	10% discount
Aspect Computing Education Services		Ph: 6247 7608	86 Northbourne Ave Braddon	10% discount
Australian Management Control		Ph: 6285 4888	Suite 4, 32-36 Colbee Court, Phillip	5% discount on recordkeeping and payroll courses
Net Maths Tutor	Email-based maths tutoring service provided by experienced teacher (high school to uni level)	Ph: 6258 4791 Email: plavers@canberra.teknet.net.au www.teknet.net.au/~plavers/		10% discount

Members' Ads

FOR SALE

Disks: 50% off

4 (and a broken box) boxes of 50x3.5" DSDD 720k disks **\$ 2 0 each box**

3 boxes of 10x3.5" DSDD 720k disks **\$4 each box**

Data Cartridges: 50% off

10 x DC 600A 60Mb **\$10**
 4 x DL 2000 **\$10**
 9 x 2120 EX **\$25**
 21 x DC2120 QIC80 **\$14**
 16 x 2120XL (Double pack) **\$28**
 1 x Memorex MRX 6250 **\$24**

15 x Disk Storage Boxes **\$5**

1 x 1/4" cleaning kit - don't know if used or what.

Call PCUG Centre on 6253 4911



WANTED

HP Deskjet Box

Have you bought a HP Deskjet 820 Cxi colour printer? Harvey Norman has stacks of them. If you do not wish to keep the box and packing materials, I would very much like to obtain one (as mine came without the pack).

Please contact me if you can spare the box.

Philip Veerman
 phone 62314041 or
 pveerman@pcug.org.au

Artec Handheld Colour Scanner,

Win 95 compatible,
 full colour, greyscale or line art,
 16.7 Million true colours,
 With manuals, disk, and card.
 Bargain \$90
Call Ivan 6259 0500

PC Users Group Membership Application / Renewal

Annual Fees Applicable (one)

- General¹ \$ 50
- Concessional² \$ 25
- Corporate³ \$130
- Additional Corporate⁴ \$ 50
- International (Air Mail) \$130

Notes

- 1 General membership covers all members of a household except for BBS and Internet access.
- 2 Concessions apply to full time students and pensioners.
- 3 Corporate Membership covers up to three nominees.
- 4 Additional Corporate nominees may be added at \$50 each.

I am paying by (one)

- Cash (if paying by person) Cheque to PC Users Group (ACT) Inc
- Credit card — Bankcard, Mastercard or Visa

Title	Given Name	Surname
Organisation (if applicable)	PCUG Membership Number (if applicable)	
Postal Address		
Phone (h)	Phone (w)	Concession Type (if applicable)
Credit Card Type / Number	Expiry Date	Signature

I would like to (one or more)

- Become a new member for ___ year(s)
- Renew for ___ year(s)
- Change my address details
- Change Corporate nominees
- Take my address off advertising list
- Access the Bulletin Board (BBS)

Reasons for Joining ((one or more)

- Sixteen Bits Magazine Training Courses
- The Internet Project Advice and help

Other _____

TOTAL PAYMENT DUE \$ _____

Please Post your application with payment to:
PC Users Group (ACT) Inc
PO Box 42 Belconnen ACT 2616

Additional Corporate Membership Nominees

Title	Given Name	Surname	
Position (if applicable)	Phone (h)	Phone (w)	
Title	Given Name	Surname	
Position (if applicable)	Phone (h)	Phone (w)	





















The Help Directory

The people in this directory are *volunteers* so please observe the times given. The Help Directory is designed to help individual users and should not be used as a substitute for corporate support calls to vendors! This service is provided for *members only*. Please quote your membership number to the helper. For those helpers with an asterisk *, messages may be left on the BBS in either the General message area or as a Netmail message on 3:620/243. Send updates to pcug.editor@pcug.org.au or via post to the PCUG Centre.

Subject	Name / Email	Phone	Days	Times
Access for Windows	Graham Fry	6288 3138	All days	7.30pm - 8.30pm
Assembly Language	Thomas McCoy	6294 2226	Mon - Fri	8.00pm - 10.00pm
Audio	Peter van Runt	6288 5556	Mon - Fri Weekends	All day 12noon - 8pm
AutoCad	Geoffrey May *	6295 5942	Mon - Fri	4.00pm - 5.00pm
AutoCAD Rel 12, 13 and LT	Neil Moffat	6292 7108	All days	Noon - 10.00pm
BASIC + Machine Language	George McLintock	6295 6590	All days	8.30pm -10.00pm
Bluewave	Jorge Garcia	6282 2681	All Days	7.00pm - 9.00pm
Batch Files, TSRs, Utilities	Bill Ghysen	6287 1234	Mon - Fri	8.00pm - 10.00pm
Bulletin Board Service	Michael Phillips *	6253 4966	All days	7.30pm - 8.30pm
C/C++	Nhan Tran ntran@pcug.org.au	6254 5293	All except w'end & Tue	7.00pm - 9.00pm
Chinese Star for Windows	Peng Lee	6258 0156	All days	1.00pm - 9.00pm
Eudora	Nhan Tran ntran@pcug.org.au	6254 5293	All except w'end & Tue	7.00pm - 9.00pm
Excel	Grahame Fry	6288 3138	All days	7.30pm - 8.30pm
Flight Simulation	Roger Lowery lowery@pcug.org.au	6258 1583	All days	Anytime
Free Agent / Agent Newsreading	Allan Mikkelsen	6278 3164	All days	Noon - 9.00pm
General Help	Brian Gosling	6259 1116	All days	7.30pm - 8.30pm
GEOS/GeoWorks	Phil Jones	6288 5288	All days	6.00pm - 10.00pm
Hardware	Anthony Glenn	6288 8332	All days	Anytime
HDK	Lis Shelley lis@nullarbor.com.au			
HDK	Ivana Leonard	6231 4169	Mon - Thu	7.00pm - 9.00pm
HyperText Markup Language	Peter Tilbrook webmaster@dynamite.com.au	6242 4000 0411 508 169	Weekdays	10.00am - 6.00pm 6253 8153 (ah)
Internet connection	Nhan Tran ntran@pcug.org.au	6254 5293	All except w'end & Tue	7.00pm - 9.00pm
Internet Explorer (Microsoft)	Peter Tilbrook webmaster@dynamite.com.au	6242 4000 0411 508 169	Weekdays	10.00am - 6.00pm
ISR CADDSMAN Modeller (Win)	Neil Moffat	6292 7108	All days	Noon - 10.00pm
Microstation Cad	Andrew Novinc	6258 1907	All days	6.00pm - 10.00pm
Midi	Peter van Runt	6288 5556	Mon - Fri Weekends	All day 12noon - 8pm
Microsoft Front Page 98	Peter Tilbrook webmaster@dynamite.com.au	6242 4000 0411 508 169	Weekdays	10.00am - 6.00pm
Modem Communications	Michael Phillips *	6281 1980 or	All days	7.30pm - 8.30pm
Noteworthy Composer	Andrew Purdam apurdam@pcug.org.au	6230 2231	All days	Anytime
Online doc using Help Compiler (Win3)	John Carroll jcarroll@pcug.org.au	6248 0781	All days	7.30pm - 10.00pm
OS/2	Andrew Acton aacton@pcug.org.au	6293 1684	All days	9am-9pm
OS/2	Dave Thrum davet@ozemail.com.au	6201 8806	Mon-Fri	8am-6pm
OS/2	Michael Lightfoot *	6258 8185	All days	7.30pm - 9.30pm
Scream Tracker 3 (3SM) / MOD Music	Chris Collins	6258 8276	Mon - Fri	7.30pm - 9.00pm
Small Business Computing	Nick Thomson	6241 3239	Mon - Thu	7.30pm - 9.30pm
Telix	Michael Phillips *	6281 1980	All days	7.30pm - 8.30pm
SCO Unix & Xenix	Jeremy Bishop	6291 0478	All days	7.00pm - 9.00pm
Unix	Michael Lightfoot *	6258 8185	All days	7.30pm - 9.30pm
Unix/Linux/*BSD	Jonathon Ross	6288 1428	All days	6.00pm - 10.00pm
Turbo Pascal	Michael Phillips *	6281 1980	All days	7.30pm - 8.30pm
Visual Basic for Windows	Cedric Bear cbear@interact.net.au	6258 3169	All days	7.30pm - 8.30pm
Windows 95	Graeme Challinor gchallin@pcug.org.au	6236 8166	All days	10.00am - 4.00pm
Windows 95 (basic help)	Carolyn Simpson ryn@effect.net.au	6230 4795	All days	Anytime
Word for Windows	Lis Shelley lis@nullarbor.com.au			
WordPerfect 5.1 DOS, 6.1 Win	Gayle Scott gayles@pcug.org.au	6254 1579	All days	7.30pm - 9.30pm
WordStar	Dave Hay	6258 7310	All days	7.00pm - 9.00pm

August

Monday Tuesday Wednesday Thursday Friday Saturday Sunday

				Sixteen Bits Commercial ad deadline for September 	Internet Clinic PCUG Centre 9.30- 1.00pm  Layout Day for Sixteen Bits 10.00am 	TRAINING DAY PCUG Centre 9.30am Introduction to Word 7 
Internet Day- time Demo and Discussion SIG PCUG Centre 10.00am-2.00pm New Members' Night PCUG Centre 7.30pm 				31 July	TRAINING DAY PCUG Centre 9.30am MYOB 	TRAINING DAY PCUG Centre 9.30am Introduction to Windows 95 
	Coffee and Chat PCUG Centre 9.30am-12.00 Flight Simulator PCUG Centre 1.30pm-3.30pm C /C++ SIG PCUG Centre 7.30pm		Committee Meeting PCUG Centre 7.30pm 		TRAINING DAY PCUG Centre 9.30am Visual Basic Programming - Intro 	TRAINING DAY PCUG Centre 9.30am Intro to the Internet - Full Access (beginners) 
Internet Daytime Demo and Discussion SIG PCUG Centre 10.00am- 2.00pm 	Delphi SIG PCUG Centre 7.30pm 		OS/2 SIG IBM Building 8 Brisbane Ave Barton 7.00 for 7.30pm OS/2WARP		TRAINING DAY PCUG Centre 9.30am Excel 7 - Intermediate 	TRAINING DAY PCUG Centre 9.30am Designing your own web page - Intro 
16 Bits Stuffing and Mailing PCUG Centre 5.00pm	Flight Simulator PCUG Centre 1.30pm-3.30pm 		Linux Users Group Room N101 Computer Science Dept ANU 7.30pm Investment SIG PCUG Centre 7.30pm 	Sixteen Bits Article deadline for October 	TRAINING DAY PCUG Centre 9.30am Intro to the Internet - Full Access (users with some experience) 	TRAINING DAY PCUG Centre 9.30am Introduction to Windows 95 
Internet Demo & Discussion 10.00am-2.00pm Main Meeting Manning Clark Theatre 1 Crisp Bldg. ANU 7.00 for 7.30	Coffee and Chat PCUG Centre 9.30am- 12.00 					
Bytes SIG Asian Bistro ANU 6.00pm (before PCUG meeting)						

Note: Commercial ad deadline for October is 4 September